

CONSULTATION RESPONSE



Proposed Changes to Part L of Building Regulations

30/10/2012

1. Initial comments on the consultation proposals

We are deeply concerned with the proposals set out by the consultation documentation - i.e.

1. Higher standards of energy performance for new and existing buildings, the options being:

2. A phased 40% improvement in Part L 2010 for new housing with an effective date of January 2015, or a staged 25% improvement in 2014 followed by a review in 2016 to increase standards to zero carbon before the end of the decade;

In terms of the above, we have been informed by the Welsh Government that the 40% improvement option is the 'preferred option'.

Throughout our evidence, we raise a plethora of concerns with respect to the changes outlined in the consultation proposals and also with respect to the background information provided to support the changes. We deal with these issues in turn throughout evidence submission below, however to begin with, we feel it necessary to highlight a particular concern that seems to present itself almost from the outset. That is, we are acutely concerned by the fact that the proposed changes, including the 'preferred option', are still being considered, despite being undermined considerably by the 'evidence' provided to support the proposals.

In this respect, it is evident that the supporting information does not, in any way, demonstrate that what is being proposed is viable and deliverable. It is also evident that

what is being proposed also does not stack up in terms of the analysis of costs and benefits provided by the Regulatory Impact Assessment. When a new policy or regulatory change is being proposed, one would expect the supporting information for that policy/piece of regulation to demonstrate that the proposed changes are founded on robust evidence and are capable of being delivered, taking into account their own requirements and the wider context in which they will exist. However, the evidence put forward to supplement the building regulation changes does not offer this support on any level. It also does not demonstrate that the proposals are viable or deliverable, it does not demonstrate that the proposed changes are cost effective, neither does it demonstrate that the proposals would be the most effective way and practical to achieve the European target of ‘near zero carbon’ buildings by 2020.

In light of the above, we are perplexed at the decision to continue to put forward the changes proposed, particularly given that, in our view, the background evidence systematically fails to demonstrate that the proposals are viable, deliverable or appropriate for adoption in Wales.

2. Specific comments on the proposals

2.1 Viability, deliverability and political conflict

2.1.1 Viability and deliverability assumptions

In terms of viability and deliverability, the *Cumulative Impact of Policies* section under paragraph 3.3 of Section 1 of the consultation documentation, contains a section on viability modelling. However, this section by no means demonstrates that the proposed regulation changes are viable. Indeed, we believe it proves the opposite. For instance, paragraph 95, fifth bullet point, states “*Higher construction costs are likely to be accommodated in higher land value areas (Cardiff, Newport, Swansea) for both the 25 and 40% improvement through realistic reductions in planning contributions, developers profit and/or the land value paid to the land owner.*” Essentially, this paragraph suggests that high values areas could accommodate the proposed changes, if planning obligations are reduced and developer profits/land values are reduced. However, if the study was undertaken robustly, the results would have demonstrated that achieving these qualifying requirements would not be as straight forward as anticipated.

For example, we believe the suggestion that land values can simply be reduced to facilitate delivery, fails to recognise the potentially significant impact the cost of the proposed regulations would have on land values in many areas of Wales. We provide a detailed example of the impact of the proposed regulations on land values in Chapter 3 below.

Further to the above, we also believe the suggestion that land values and section 106 obligations can be reduced to facilitate delivery also fundamentally misunderstands the way in which local planning policies, particularly policies with respect to affordable housing are created. In this respect, through the LDP process, policies on affordable housing are always adopted with ‘aspiration’ in mind. That is, whilst the formation of affordable housing policies should be based on evidence with respect to viability, the Welsh Government always insists on affordable housing policies being aspirational. The Welsh Government believes that affordable housing policies should be ‘challenging’ in order to ensure the margins of viability are squeezed to enable the maximum amount of affordable housing to be delivered. Therefore, when affordable housing policies are formulated, they are always at the more challenging end of the scale and there is an expectation, which is consistently repeated by the Welsh Government, that land values and developer profits will need to reduce, in order to ensure the delivery of affordable housing is pushed to the limits.

As such, in terms of the suggestion that land values and developer profits can be reduced to deliver the proposed building regulation changes, it is clear that local authorities have already exhausted this approach in setting affordable housing targets through LDPs, and therefore the scope to make any further alterations to land values, developer profits or planning contributions is virtually nonexistent. Again, given that it is the Welsh Government that insists on affordable housing policies being created in this way, we are confused as to how this has not been fully recognised within this consultation.

In addition to this, the Welsh Government also insists on affordable housing policies being linked to performance of the market and the general economy, in order to ensure that when conditions improve (e.g. house prices increase or costs decrease) the amount of affordable housing can increase correspondingly. In all cases the Welsh Government expects affordable housing policies to be formulated and adopted within Local Development Plans in this way, and the Monitoring section of the LDP aims to ensure this process works effectively. Therefore, we can see that any improvement in margins that might occur in the

future to aid with housing delivery and/or costs, will immediately be offset by higher affordable housing policies. As such, any future improvement in the economy or housing market is therefore unlikely to provide any flexibility to deliver increased building regulation standards.

Also, in terms of developer profit, the consultation information states that the Three Dragons Toolkit has been used to inform the viability analysis. Indeed, the information provided by the WG with respect to their own viability assessment confirms that the default values from the Three Dragons model were used. In terms of the Three Dragons model, all the default values were discussed in detail with the Three Dragons consultancy when devising the Wales version of the Toolkit, and the Welsh Government was an integral part of the working group that was commissioned to formulate the Toolkit. The working group also had membership from the 10 local authorities in South East Wales, as well as the HBF and a wide range of attendees from the home building industry. Crucially, the final version of the Welsh version of the Toolkit was agreed by all parties involved in the working group, including the Welsh Government and therefore, the default values, including developer profit, were also agreed.

In this respect, the profit levels assumed in the Toolkit are minimum profit levels required by developers in order to ensure funding can be secured to allow developments to proceed. As we state above, this was agreed by all parties in the working group. As such, to now suggest that developer profit could somehow be reduced, in order to make the proposed regulation changes appear viable and deliverable, is clearly not a credible caveat to propose. We are also surprised that the Welsh Government would offer this caveat, given their detailed involvement in the creation of the Wales version of the Toolkit.

In light of the above, we believe it is important to stress that any proposed reduction in developer profit levels is simply not an option and would render the viability analysis unsound with respect to the assumptions used to inform it.

Further to this, the profit levels have also been confirmed to represent minimum requirements by banks and lending institutions. Indeed in some circumstances, particularly

in West Wales where the majority of homes are constructed by smaller developers, lending institutions have stated that these profit levels would be insufficient to allow funding to be secured. In Ceredigion for example, lending institutions that were present at their Affordable Housing Viability Assessment meeting stated that a minimum of 25% gross profit would need to be demonstrated to allow a scheme to be considered viable. The developers at the meeting also confirmed this to be the case.

In light of the above, it is clear that there is very little, if any, scope to further reduce land values or developer profits in order to aid in the delivery of these proposals. In addition to this, given that the results of our viability analysis in Chapter 3 below, and also given the fact that the Welsh Government's own analysis of the viability of the proposals quite effectively demonstrates that proposed regulations are neither viable or achievable, we do not believe this simple caveat provides a sufficiently robust qualification to ensure that the proposals would indeed be deliverable in all areas across Wales.

2.1.2 Conflicting Political aspirations – the importance of affordable housing

We discuss above the importance attached to the delivery of affordable housing from a national and local government perspective. However, we believe these consultation proposals offer a complete different view of the importance attached to the affordable housing delivery, which directly conflicts with the view espoused by the Welsh Government.

We provide a more in depth analysis of the potential impact of the proposed regulations on affordable housing delivery within our section on *'the cumulative impact of regulation'* below. However, in the first instance, we believe it is important to consider the way in which the consultation deals with affordable housing and how affordable housing has been used, and is expected to be used, in order to make the proposed regulations changes appear viable and deliverable.

Firstly, the consultation information states that, in the quest to understand how the proposed regulation changes can be deemed viable and deliverable, the delivery of affordable housing has been considered to be a 'variable'. This will believe directly contradicts one of the primary objectives of the Welsh Government, which is to deliver an **increase** in affordable homes for the people of Wales. In this respect, we cannot

understand how on the one hand the Welsh Government can attach such a significant priority to the delivery of affordable housing, but on the other hand consider the delivery of affordable housing to be a 'variable' in order to help deliver separate proposed policy and regulatory changes.

In terms of the above, the sixth bullet point under paragraph 95 of Section 1 of the consultation documentation perhaps provides the most damning indictment of importance attached to the delivery of affordable housing and how the proposals would impact on affordable housing delivery. This bullet point states that in addition to **no contribution to affordable housing** a reduction in developers profit or land value would be required if the development was to be considered viable.

In terms of this statement, we cannot understand how proposed regulatory changes can be issued by the Welsh Government that require affordable housing delivery to be abolished in order to ensure delivery. Notwithstanding the viability issues we outline above, (and in detail below), the Political message this send out is vastly at odds with everything we have heard on a national scale and everything that is being pursued at a local level. We have been informed that there is a certain amount of '*Political will*' behind the proposed regulation changes, however, we would argue that there is a lot more '*Political will*', both nationally and locally, behind the delivery of affordable housing. Furthermore, considering our viability analysis in Chapter 3 and the potential impact of the proposed changes on development viability, particularly in 'lower land value areas', (which are very much in the majority when it comes to the developable landscape of Wales), it is clear these proposals would result in a wholesale eradication of affordable housing delivery across Wales, which surely cannot be an acceptable consequence to bear. As a home building federation body, we strongly object to the proposals on these grounds.

In light of the above, we cannot understand how the Welsh Government can offer a 'preferred option' for regulatory change that seriously compromises the delivery of affordable housing across Wales. When considered in tandem with the viability issues that currently exist in many areas of Wales and the lack of flexibility in land values in those areas to aid with delivery (our viability analysis below emphasises these points), it is clear that affordable housing delivery would be severely curtailed (or even eliminated) in vast areas of the country for the foreseeable future, if the proposed regulations are introduced. In light of this, we are unable to fathom how the Welsh Government can seriously consider

introducing these proposals, particularly given their robust commitment to increase the delivery of affordable homes in Wales, and also given the importance of housing delivery, including affordable housing delivery, to the social and economic success of the country.

2.1.3 Regulatory Impact Assessment

In terms of the costs and benefits of the proposed changes, there is a Regulatory Impact Assessment that accompanies the consultation proposals. In terms of the RIA, the conclusions clearly state that the proposed changes to newly built homes result in a **net cost** to society. In fact, when the RIA is studied in detail, it is clear that the vast majority of the carbon savings are achieved by alterations to non-domestic buildings (paragraph 12 of the RIA confirms). As such, it is clear that the changes proposed to new dwellings represent a significant **cost** to society and it would actually be the changes to non-domestic properties that would make any real terms efficiencies with respect to the costs and benefits of facilitating carbon emissions reductions in Wales.

Further to this, given that the development and regulation of new dwellings does not relate to non domestic buildings in any way, we cannot understand why the RIA for non domestic buildings should influence the RIA for new dwellings. We believe it is unfair and inappropriate to amalgamate the RIA results to form an overall conclusion that the proposed regulation changes ‘stack up’. Clearly these two forms of development are very different and one has very little (if any) bearing on the other. As such, we believe the only conclusion to draw from the RIA is that the proposed regulation changes (25% and 40%) should not be pursued, as they represent a significant net cost to society, rather than a net benefit.

Furthermore, we must also consider the RIA undertaken for the fire suppression systems proposals and the impact this would have on the proposed regulation changes. The cost/benefit analysis that was undertaken for the fire suppression system proposals also clearly demonstrates that there would be significant net cost to society, if the proposals were introduced. In this respect, given that the fire suppression systems legislation directly affects the construction and delivery of new dwellings, we believe it would be appropriate to consider this RIA in tandem with the RIA to inform the proposed changes to Part L of building regulations. In this respect, if one were to combine both RIA’s, the conclusion

would be clear i.e. there would be a significant net cost to society and therefore, the proposed changes should not be pursued.

2.1.4 Welsh Government's sensitivity analysis – development mix assumptions

We are concerned with the development mix assumptions used to inform the viability analysis and regulatory impact assessment, which by the Welsh Government's own admission, do not correspond with what the home building industry stipulates to be an appropriate development mix assumption. In this respect, we have canvassed our membership on this issue and the consensus is that a development mix should assume no more than 10% flatted development, with some members indicating that it should be as low as 5%. As such, we believe the flatted development assumptions have been significantly over estimated within the consultation proposals.

In terms of the impact of reducing the percentage of flatted development assumed in the Regulatory Impact Assessment, Table 8 under paragraph 63 of the assessment displays the assumptions utilised in the consultation proposals, compared with the assumptions put forward by the home building industry as a result of the initial consultation undertaken by the Welsh Government. This table is repeated below.

Table 8. Alternative domestic property build mix

	Central assumption	Sensitivity assumption
Detached	30%	34%
End terrace/semi-detached	38.5%	42.5%
Mid-terrace	10.5%	13.5%
Apartment	21%	10%

If you consider the table above, it is clear that the assumptions for detached, EoT/semi and mid-terraced properties are relatively similar, albeit there is more emphasis on larger dwelling types. However, the assumption with respect to flatted development is vastly different, which concurs with the results of our consultation exercise. In light of this, we believe the assessment should have been based on the sensitivity assumption, rather than the central assumption, as clearly this would more accurately reflect the nature of development that would actually be constructed in the foreseeable future.

If the sensitivity assumption was used as the basis for the assessment, clearly the results of the assessment would have been significantly different. In this respect, if you consider paragraph 64 of the Regulatory Impact Assessment, this states that reducing the assumption for flatted development makes the RIA worse, i.e. the proposals will have a more significant negative impact on society. Furthermore, reducing the level of flatted development in the build mix would also further compromise development viability, given that there would be an increase in the proportion of homes with more costly construction requirements into the mix. Given our comments on viability throughout this evidence submission, and also given the comments from our members on the likely development mix that will be constructed in the foreseeable future, this is clearly of significant concern and will have an even greater detrimental impact on land values and hence housing delivery across all areas of Wales. As such, we believe the development mix assumptions are incorrect and the assessment should have been based on the sensitivity assumption rather than the central assumption.

2.1.5 European 20/20 target

The consultation proposals make reference to the need for all European Member States to abide by the recast of the 2002 Energy Performance of Buildings Directive (Directive 2010/31/EU). This Directive states that all new buildings should be 'near zero energy' by 2020 and the Welsh Government believes their proposals provide the best and most practical route to achieve this target.

However, we disagree with this assumption. Clearly a significantly important part of the journey towards the 2020 target will be to ensure that such energy efficient homes are actually provided. If homes are not provided, not only will it have a severe impact from a social and economic perspective, but it will also significantly compromise the ability for the construction industry to improve its 'learning rates' and develop the skills and knowledge to effectively construct homes to higher energy efficient standards. This would also have a knock on effect on 'learning rates' in the energy industry and would significantly compromise the ability for manufacturers etc to refine current technologies and develop new technologies to ensure our energy consumption is managed and reduced in the most effective and efficient way. In this respect therefore, clearly these current proposals are not the most effective path to meeting the 2020 target, given that they will significantly reduce

the amount of viable and deliverable land for development in many areas of Wales and hence, seriously compromise the delivery of homes in the period to 2020.

In light of the above, we believe it would be imprudent to consider these proposals as a practical path to meeting the 2020 target. Given that the WG states that the 'preferred option' would be considered the maximum level of energy saving one could achieve 'on site', and given the negative impact the proposed changes could have on housing delivery, we do not see the necessity for such a sizeable and rash alteration to building regulations at such an early juncture in the process. We believe these proposals could actually damage Wales' ability to achieve the 2020 target and this should be seriously considered when deciding whether or not to introduce the changes as proposed.

2.2 Initial conclusions

In light of our evidence above, in our view it is clear that the information and evidence submitted with the proposed regulation changes demonstrates (by some margin) that the proposals are not viable, deliverable or suitable for adoption in Wales.

It is clear that the Regulatory Impact Assessment for newly built homes does not stack up, the viability analysis demonstrates that land values will be severely affected, and there is a raft of evidence that is simply unsupported, particularly the notion that land values or developer profits can be altered in order to ensure the proposals are viable and workable. Furthermore, it is also evident that the proposed changes are highly unlikely to facilitate any successful achievement of the European 2020 target, given that they would significantly reduce housing delivery across Wales, which would have a knock on impact on the way in which technologies are refined and created, and also the extent to which 'learning rates' are improved both in the energy and construction industries in Wales.

In addition to the above, there is also a significant issue in terms of what is being proposed from a Political viewpoint. The Welsh Government's aspirations for housing delivery and affordable housing delivery have been made crystal clear, particularly through recently released documents such as the Housing White Paper. However, these proposals offer a completely different message with respect to affordable housing delivery and we must reiterate that we cannot possibly understand how the Welsh Government can put forward

a set of regulatory changes, particularly a change that is labelled a '*preferred option*', that would require affordable housing delivery in many areas of Wales to be abolished.

As a result of our initial evidence above, we do not believe the any of proposed regulatory changes for newly built homes, as outlined by the consultation proposals (and repeated below), should be pursued.

2. A phased 40% improvement in Part L 2010 for new housing with an effective date of January 2015, or a staged 25% improvement in 2014 followed by a review in 2016 to increase standards to zero carbon before the end of the decade;

3. Residual land values and the cumulative impact of regulation

i. Introduction

As we have stated in our initial evidence above, we believe the proposed changes to building regulations will have a significant detrimental impact on land values and development viability in Wales. In this respect, the consultation evidence provides a brief description of how the proposed changes might affect land values and development viability, which suggests that the Welsh Government agrees with our concerns. However, this exercise is rather limited in our view, as it only considers the impact on housing development in three local authorities in Wales i.e. RCT, Conwy and Cardiff and does not fully demonstrate the implications of the proposed regulatory changes on the delivery of homes, including affordable homes, in these areas.

In terms of this exercise, Tables 3.6 and 3.7 of Section 1 of the consultation documentation provide an indication of percentage reduction in land values when the proposals are introduced. The tables are repeated below and also assume that 0% affordable housing is delivered in these areas.

Table 3.6: A 25 dwelling development

	% land value reduction against current policy		
	Rhondda Cynon Taf	Conwy	Cardiff
25%	13% (0%)	10% (0%)	7% (0%)
40%	15% (0%)	12% (0%)	8% (0%)
sprinklers	10% (0%)	4% (30%)	2% (0%)
25%+sprinklers	22% (0%)	14% (0%)	8% (0%)
40%+sprinklers	25% (0%)	17% (0%)	10% (0%)

Table 3.7: A 50 dwelling development

	% land value reduction against current policy		
	Rhondda Cynon Taf	Conwy*	Cardiff
25%	12% (0%)	2% (0%)	7% (0%)
40%	15% (0%)	5% (0%)	8% (0%)
sprinklers	4% (0%)	0% (3%)	2% (0%)
25%+sprinklers	16% (0%)	7% (0%)	9% (0%)
40%+sprinklers	18% (0%)	10% (0%)	10% (0%)

As you can see from the tables above, there is a considerable reduction in land values in each local authority for both the 25 and 50 unit developments, before any element of affordable housing has been taken into account. This provides a useful high level insight into how the delivery of affordable housing might be affected. For instance, the recently adopted Local Development Plan for RCT already states that just 10% affordable housing is achievable in the Northern Strategy Area. Clearly the addition of an 18% - 25% reduction in land values will have a significant impact on the delivery of affordable housing in this area to the point where absolutely no affordable housing would be viable. In this respect, if we consider the relevance to other areas in Wales, the picture is equally as bleak.

In Caerphilly for example, their adopted LDP does not require any contribution to affordable housing in some areas of the authority, due to the issues experienced with development viability. We are aware that the Council has ambitions to deliver affordable homes in these areas and are hoping that conditions might improve in the future to enable them to do so. However, clearly the addition of a significant reduction in land values on top of this, would

seriously compromise affordable housing provision in these areas well into the foreseeable future.

Further to the above, in terms of Merthyr's LDP, Policy AS22 attempts to deliver 10% affordable housing in the Primary Growth Area and 5% affordable housing in the Secondary and Other Growth Areas. In this respect an 18% - 25% reduction in land values will completely wipe out the ability for Merthyr to deliver any affordable housing over the whole authority, which would effectively make their LDP Housing Strategy, and hence the LDP itself, 'unsound'.

In light of the above, we can see that the proposals have the potential to impact significantly on development viability to a point where the ability for local authorities to deliver housing and indeed affordable housing would be virtually eliminated. This, we believe, cannot provide a sound basis for regulatory creation, particularly when we consider that the proposed regulations would be required by law and therefore would be non-negotiable on all developments across Wales.

3.1 Detailed viability analysis

Taking this initial analysis of viability into account, it is clear the building regulation changes as proposed are neither viable nor deliverable. However, whilst this exercise provides a useful indication of the likely impact on land values, it does not demonstrate the full impact on land values in each area, and potentially across Wales, and also does very little to translate what this impact might mean with respect to housing delivery. As such, we believe a more in-depth analysis is required in order to demonstrate the significant impact the proposals will have on land values and development viability, and the consequent impact on housing delivery, in many areas of Wales.

In order to do this, we have made an assessment of the impact of the proposals across a number of local authority areas in Wales, using data taken directly from studies undertaken by each local authority. The example areas we have used are Bridgend, Caerphilly, Merthyr, Monmouthshire, RCT, Torfaen, Vale of Glamorgan, Conwy, Newport, Brecon Beacons National Park and Carmarthenshire, as these local authorities have all undertaken Affordable Housing Viability Assessments (using similar methodologies), in order to assess the impact of affordable housing requirements on land values within their

respective authority areas. This also provides a good spread of authorities from across Wales, including high value areas, low value areas, rural areas and national parks. From these assessments, it is possible to illustrate the impact of the proposed regulation changes, together with the impact of current regulations (planning and otherwise) on land values, and hence on the viability of housing development as a result. It is also possible to further highlight the devastating impact the proposals will have to the provision of affordable housing in these areas, which again we reiterate, is considered to be a 'national priority' by the Welsh Government.

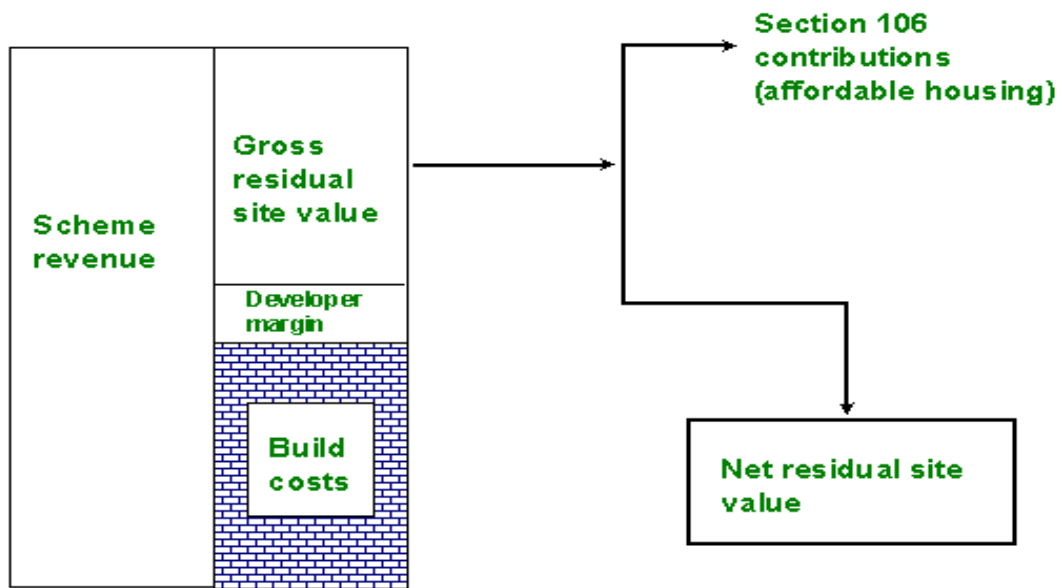
3.1.1 Methodology for the assessment

As we state above, the source data has been taken from the Affordable Housing Viability Assessments undertaken by each local authority in collaboration with the Three Dragons consultancy, which follow a 'residual valuation approach'. In essence this methodology can be explained as follows:-

- **Assumed Gross Development value of the site (the total sales revenue)**
 - *Minus*
- **Development costs (Build Costs, Finance Costs, Overheads etc)**
 - *Minus*
- **Developer Profit**
 - *Minus*
- **Section 106 Contributions (Affordable Housing, Education, Transport, Open Space, Public Art etc)**
 - *Equals*
- **Final Residual Value**

Crucially, the *Final Residual Value* must be sufficient to incentivise the land owner to sell their particular piece of land for development, otherwise the scheme will not go ahead. Therefore, simply achieving a positive residual value does not indicate development would be viable. The residual value must be at least comparable to current residential land values in any particular area, in order to ensure there remains the possibility of facilitating the sale of the land in question for residential development.

The following diagram is given within each affordable housing viability assessment to illustrate the process.



Within each assessment, the above methodology is used to achieve a net residual land value. However, the Three Dragons assessment model assumes the test development site is a 'notional' 1 hectare site that is free from constraints and ready for development. As such, in order to ensure the viability assessment is realistic with respect to development in Wales, and in order to demonstrate the impact of the proposed regulatory changes, (and other development requirements) on the final residual value, it will be necessary to include some additional data into the assessment. We set this out in detail below.

a) Assumed cost of the proposed changes to Part L of Building Regulations and Fire Sprinklers

Firstly, we need to include the potential costs of the proposed changes to building regulations. In terms of the costs, there are several pieces of information provided in various parts of the consultation documentation that provide information on potential additional construction costs for the proposed changes. However, perhaps the most useful indication of costs is provided in Table 3.2 (repeated below), which provides an indication of the likely cost of the changes to Part L for different dwelling types, in addition to an average cost per dwelling.

Table 3.2: Increases in capital costs

	Mid terrace house	End of terrace house	Detached House	4-storey apartment block	Average cost per dwelling
25% reduction	£2,000	£3,000	£5,100	£1,800	£3,300
40% reduction	£2,800	£3,900	£6,600	£2,300	£4,200

In light of the above, for the purposes of our assessment, we will use the average cost per home for each proposed building regulation change i.e. 25% and 40%.

In addition to the cost of building regulations, it will also be necessary to make an assumption of the cost of installing fire suppression systems, which mirrors the methodology used in the viability analysis undertaken by the Welsh Government.

In terms of the requirement for sprinklers, if you study Table 3.4 of Section 1 of the consultation documentation, the cost of sprinklers has been assumed as being £3075 per dwelling. Therefore, and given this is also an average cost, it will be appropriate to include this within our viability assessment, in order to arrive at an approximate overall cost for the changes as proposed.

In light of the information above, a summary of the costs we have used is provided below.

Average additional cost to development

- 25% change to Part L - £3,300
- 40% change to Part L - £4,200
- 25% plus sprinklers - £6,375
- 40% plus sprinklers - £7,275

b) Site abnormalities and remediation

As discussed above, the Three Dragons assessment model does not make an allowance for the cost of site remediation and abnormalities. In this respect, considering that (in line with national guidance) most local authorities seek to maximise the reuse of previously

developed land, and also considering nature and composition of much of the developable land in many areas of Wales, we believe it is entirely reasonable to make an allowance for these requirements. In addition to this, it is clear that through the viability analysis undertaken by the Welsh Government to inform the consultation proposals, an allowance to reflect the additional costs of remediation has also been included. As such, we have canvassed our membership to try and ascertain the appropriate cost to assume for these requirements within our viability assessment.

In this respect, from the consultation exercise we undertook with our membership, we received a number of examples of the costs associated with site remediation and addressing abnormal constraints. Some of the costs we received were estimates, whilst others were actual costs taken from recently developed sites. In terms of figures, the costs ranged from 115k per acre for more straightforward sites, to over 400k per acre for more difficult sites. On average however, from the list of sample sites that were provided and from the comments we received, the cost of remediation and addressing abnormal constraints was considered to be approximately £220k per acre. A list of the sample sites and costs received as a result of our exercise is provided within Appendix 14.

Further to the above, we also received reports from Intégral Géotechnique and Arup outlining a summary of the typical costs of remediating sites in Wales. We enclose a copy of both reports in Appendices 14 and 15. As you can see from these reports, the organisations are professional consultancies that specialise in site remediation and the redevelopment of housing sites. Both organisations have extensive experience and expertise in developing land in many areas of Wales for a variety of different clients and therefore, we have no doubt that the cost estimates provided within these reports are robust and accurate. In terms of figures, as you can see from the reports the typical costs provided for site remediation and addressing abnormal constraints ranged from between £175k per acre and £325k per acre, which on average works out at £250k per acre. However, it is evident from the advice given within the reports that due to topography and the general nature of development sites in Wales, the actual costs could be well in excess of the figures quoted. As such, we believe this should be considered a conservative estimate.

In light of the evidence above, when the costs are considered in detail, along with the various caveats provided and the comments on the nature of developable land available

in Wales, we believe a reasonable average cost to assume for remediating sites and addressing any abnormal constraints would be £250k per acre or £617,500 per hectare. As such, this is the cost we have used within our viability assessment.

In terms of the above assumption, we understand that it does not directly correspond with research undertaken by the Welsh Government. However, we believe our research is robust. Our research contains information and evidence on site remediation and abnormal costs from a wide range of sources in the home building industry and from specialist organisations that are class leaders in this field.

Notwithstanding this, and to recognise that the WG has also provided information on these issues, we have undertaken a sensitivity analysis within our viability assessment to ascertain the impact on land values and development viability when the Welsh Government's cost assumptions are included. This is considered in detail in later section below.

c) TAN 22 Sustainable Buildings Standard

In addition to the costs above, it will also be necessary to make an assumption for the costs associated with developing to the Welsh Government's Sustainable Buildings Standard set out by TAN 22. This will be necessary as the build costs within the Three Dragons Toolkit do not include an assumption for achieving this standard. In addition to this, the WG's viability analysis also assumes a cost for this, which is set out as follows:-

- £5,000 per detached dwelling
- £4,000 per terraced dwelling
- £2,500 per apartment dwelling
- Average - £3833 per dwelling

As such, we have used the average cost within our assessment of £3833 per dwelling, in line with the Welsh Government's assumptions.

d) Sustainable Urban Drainage Systems

Given the requirement for Sustainable Urban Drainage on virtually all development sites in Wales, we believe it is also important to provide an assumption for the cost of installing SUDS solutions on development schemes within the viability assessment. Again, we have taken advice from the Welsh Government's viability analysis on this and assumed an average cost of £500 per dwelling. However, our members believe the actual costs can be a lot higher than this and therefore, this cost assumption should be considered a very conservative estimate.

e) Other Section 106 requirements

When discussing the potential cost of development, it is also important to discuss the issue of *Other Section 106* contributions. Within each affordable housing viability assessment, the local authority has made an assumption of what section 106 obligations will be required other than the requirement for affordable housing. Each authority has also assigned a cost to those requirements in order to inform the viability assessment. In this context, the '*other section 106*' costs assumed by each local authority within their respective assessments are given below:-

- Bridgend - £5000 per plot
- Caerphilly – Caerphilly Sub Market - £8500 per plot & other areas £5000 per plot
- Merthyr – Merthyr Sub Market £1361 per plot and other areas £600 per plot
- Monmouthshire - £6000 per plot
- RCT - £5000 per plot
- Torfaen - £4749 per plot
- Vale of Glamorgan - £5,000 per plot
- Conwy - £7,500 per plot
- Newport - £5,000 per plot
- BBNP - £5,000 per plot
- Carmarthenshire - £5,000 per plot

In terms of the figures above, they are assumed averages and in many cases can be considerably lower than the actual cost of section 106 requirements on development sites. In support of this view, we would invite you to study RCT's recent Planning Obligations SPG, where the cost of the planning obligations requirements when totalled amounts to significantly more than the £5000 estimate as given within their viability assessment. In

addition to this, Merthyr Council, along with a number of other council's, have recently announced an intention to charge a fee for monitoring Section 106 obligations, which again is something that was not considered within their particular affordable housing viability assessment.

Further to the above, the recent changes as a result of the Flood and Water Management Act and the additional costs involved in the new proposals (increase in development standards, increased bonding levels etc) have also not been taken into account in either the affordable housing viability assessments produced by each local authority or the Welsh Government's viability analysis. Therefore, in most cases the actual cost of the additional requirements on development is likely to be much higher when everything is taken into account.

Crucially, we believe the point to be highlighted here is that the figures assumed in the viability assessments by each local authority are quite conservative ballpark assumptions, which are not based on current policy and requirements as given within their respective planning policy documents, or the necessary realities of developing on land in Wales. For this reason, we believe the assessments should be treated with caution and should be assumed to represent an extremely conservative assessment of the impact of the proposed regulation changes on land values in Wales.

3.1.2 Results

In light of the exercise above, the results and conclusions are described below.

The graphs within the Appendices 1 to 12 below display the impact on residual land values within each local authority area, at varying affordable housing percentages, when the above exercise is undertaken.

You will see from the graphs that a significant number of the areas tested displayed negative residual land values, at all proposed regulation change options and without any contribution to affordable housing. In light of this, it is abundantly clear that reducing land values or affordable housing percentages in order to make the proposed regulations viable is **not an option.**

In terms of figures, for the proposal regulation changes without sprinklers (25% and 40%), out of the areas tested, 42% of the sites have negative residual land values at 0% affordable housing. When sprinklers are added to the assessment, 44% of the areas tested (at both 25% and 40%) have negative residual land values at 0% affordable housing. Further to this, you can also see that land values in most areas fall well below the negative value threshold, which demonstrates the lack of capacity to negotiate any planning obligations in an attempt to negate the significant additional cost of the proposed changes. Again, we believe it is important to note that merely because a development appraisal shows a positive value does not mean the development in question would be viable. As we have stated above, the residual value of site must be sufficient to enable a developer to purchase the site from a landowner, which means the value must be at least comparable to current residential land values in the area. However, in the majority of cases, a debate on what would be an acceptable land value would be rather fruitless, given that land values fall well into negative territory.

Further to the above, if you consider the results at 10% affordable housing, the situation becomes far worse. For instance, for the 'preferred option' of 40%, 63% of the areas tested have very low or negative residual values. In addition, if you include the cost of sprinklers, the percentage of areas that achieve low or negative residual values increases to 64%.

Finally, to further highlight the impact of the 'preferred option', the graph within the Appendix 12 gives an indication of what residual land values would look like in some of the main areas of each local authority, if the '40% improvement plus sprinklers' option were adopted and assuming a 10% affordable target. In terms of this graph, you will see that the only areas capable of supporting housing growth are the very high value areas, with all other areas achieving negative residual land values.

In light of the above, you can see that if a 10% affordable housing target was assumed, both the 25% and 40% options would not be workable in nearly half of the areas tested, despite whether or not the cost of sprinklers is added to the assessment. In this respect, given the Welsh Government's priority to increase the delivery of affordable housing and also given the majority of local authorities in Wales have affordable housing policy targets well in excess of 10%, we believe this demonstrates that the proposals would not be viable in the majority of areas in Wales. We also believe this demonstrates that the proposals, in

whatever form, would have a significant detrimental impact on the delivery of affordable homes in Wales, which effectively substantiates our concerns voiced above that the regulation changes would severely compromise the Welsh Government achieving one of its highest priorities i.e. an increase in the delivery of more affordable homes in Wales.

3.1.3 Sensitivity Analysis – Welsh Government’s costs

As we mention above, Welsh Government’s estimates for the cost of remediation differ to the costs assumed in our viability assessment. We have also noticed a number of other differing costs between the WG’s assessment and our assessment. As such, it will be necessary to undertake a brief sensitivity analysis of our viability exercise to account for this variation in costs.

Below is a list of the costs included in the Welsh Government’s assessment that differ from our assessment.

i) Site remediation

- 5 unit schemes - £18,750 or £3750 per dwelling
- 25 unit schemes - £65,625 or £2625 per dwelling
- 50 unit schemes - £113,250 or £2265 per dwelling
- 100 unit schemes - £265,000 or £2650 per dwelling
- Average - £2823 per dwelling

ii) Fire Sprinklers

- Homes – £2800
- Flats - £1150
- Average (over a 40 unit development using 21% split for flats and 79% split for houses) - £2470 per dwelling

In terms of the fire sprinklers costs above, for the purposes of this cost assumption we have assumed an average development of 40 units per hectare (more on this below) and have assumed the Welsh Government’s development mix, as provided within Table 8 under paragraph 63 of the Regulatory Impact Assessment, which assumes the development of 21% flats.

Before we begin the sensitivity analysis, we will need to standardise the assumed development size in the Welsh Government's assessment with that assumed within our assessment. In this respect, given that the costs within our viability analysis are given in acres or hectares, it will be necessary to assume what the Welsh Government's total costs would be per developable acre or hectare. In order to do this we first need establish a reasonable development size to assume. In this respect, our members generally state that the standard development size would be roughly 40 dwellings per hectare, which works out roughly as 16 per acre. This also coincides with most LDPs, which have policies to require minimum densities on sites in order make the most efficient use of developable land. It also coincides with the average standard development size assumed within reports from Arup and Integral Geotechnique.

In light of the above, if we use a density of 40 dwellings per hectare, the difference in assumed development costs with respect to our assessment would be:-

- Average cost for remediation $\text{£}2823 \times 40 = \text{£}112920$
- Average cost for fire sprinklers – $\text{£}2470 \times 40 = \text{£}98,800$

As you can see from the above, the Welsh Government's alternative cost assumptions are much lower than our cost assumptions. For instance, the cost assumed for remediation is nowhere near the costs our members and other experts in the field have provided, which seriously calls into question the research undertaken by the WG in our view. Also, we are slightly confused as to the origin of the fire sprinklers costs, given that they do not correspond to installation costs provided in the available evidence released by the Welsh Government. However, notwithstanding this, it will be necessary to include these cost assumptions, as read, for the purposes of the viability analysis.

The results of the sensitivity analysis are provided below.

3.1.4 Sensitivity analysis results

In terms of the results of the sensitivity analysis, Appendix 13 contains a rerun of the graph provided in Appendix 12, with the Welsh Government's costs substituted for the cost in our assessment. As you can see, even though it makes a slight improvement to the overall viability picture, there are still vast areas of Wales that will suffer negative residual values

if the proposed changes are introduced. In addition to this, even though areas such as Bridgend and Ystrad Mynach display marginally positive residual values, development is still unlikely to proceed in these areas, given that these values would still be significantly lower than any sensible value that a landowner would accept. In some areas, there might be the possibility to renegotiate the affordable contribution to make a project workable, however, given that the study only assumes the delivery of 10% affordable housing, there would be very little flexibility to achieve any meaningful land value readjustments in this regard.

In addition to this, again, given that the study only assumes 10% affordable housing, any renegotiation of the percentage would probably result in 0 affordable housing being delivered, which would clearly not be appropriate from a local authority, or Welsh Government, point of view. Furthermore, any increase in the provision of affordable housing above the 10% threshold is likely to move more areas into unviable territory, which again paints a very bleak picture for future affordable housing delivery in the face of the proposed regulation changes.

In terms of the sensitivity analysis above, we must stress once again that we believe the Welsh Government has significantly underestimated the cost of development in Wales, particularly with respect to the costs associated with site remediation and abnormals. As such, we maintain that our viability analysis is significantly more robust, as it is based on clear evidence from local authorities, the Welsh Government, the home building industry and other organisations with specific expertise in remediating development abnormals and constraints. However, notwithstanding this, even when the above sensitivity analysis is considered, the results clearly demonstrate that the proposed changes would still not be viable, deliverable or appropriate for adoption in Wales.

Further to this, given our concerns with the assumptions with respect to flatted development, we believe if a further sensitivity analysis to the viability assessment was undertaken to account for a reduction in flats in the development mix, it would probably go some way to offsetting the betterment achieved as a result of sensitivity analysis we have undertaken above.

In light of the above research, we believe the sensitivity analysis makes absolutely no difference to the overall conclusion with respect to the impact of the proposed changes on

development viability. That is, the proposals would have a major detrimental impact on development viability in many local authorities, which would significantly compromise the delivery of housing, including affordable housing, in many areas across Wales.

3.1.5 Viability analysis conclusions

In light of the above, we believe our research on the cumulative impact of regulation and land values clearly demonstrates that the proposed regulations would have a severe detrimental impact on land values in many areas of Wales. The knock on effect of this would be to stifle housing delivery, and indeed affordable housing delivery, across a range of local authorities in Wales, particularly in lower land value areas that are desperate for more homes and also desperate for regeneration and investment.

As these changes are being brought in through building regulations, there will be no opportunity to negotiate their impact on the land value on an area specific basis and as such, the impact would be indiscriminate. This effectively means that many local authorities will have absolutely no means to devise a strategy to offset these proposals in order to ensure housing delivery, including affordable housing delivery, is supported. This, we believe, cannot be an appropriate way to introduce new regulatory changes in Wales, particularly given the vast difference in land values experienced by many areas of country and the varying impact the proposed changes will have on each local authority across the board.

4. Further concerns with the proposals

4.1 The impact of the proposals on local authorities and regions

We have demonstrated through the viability analysis that significant number of local authorities will be adversely affected, in many different ways, by the proposed changes. However, one important point to note from this analysis, particularly when considering the graph in Appendix 12, is that some of the areas that achieved negative residual land values when the proposed changes are introduced, have in fact experienced quite buoyant housing markets in previous years. In this respect, areas such as Ystrad Mynach, Bridgend and Carmarthenshire are all relatively attractive areas for development and are also important from a regional perspective in terms of attracting investment and growth. Ystrad

Mynach and RCT South are particularly important to the South East Wales region, given that they act as a catalyst for spreading growth and investment from the southern areas of the respective authorities to the less attractive northern areas. However, clearly the ability for these areas to build on their success and continue to attract investment will be seriously compromised if the proposed building regulation changes are introduced, which will no doubt have a knock on effect on the rest of the region in terms of growth and prosperity. This might also have negative implications to the successful formation of City Regions, which is a concept currently being discussed and debated by the Welsh Government.

4.2 The impact on LDP's and LDP strategies

Further to the issues described above, we also believe the consequent impact on current and emerging LDP strategies must be considered. As many LDPs have specified an intention to try and regenerate communities that face particular challenges with inward investment and development, we believe it is important that the impact of all new policy and regulation is considered in terms of its likely effect on the success of such LDP strategies and the delivery of housing in these areas. In this respect, areas such as Caerphilly, Rhondda Cynon Taff and Merthyr could potentially have to re-write their LDP's, as the proposed regulatory changes will effectively mean their ability to deliver housing will be severely compromised. Thus, this will have a detrimental impact on delivery of their LDP housing strategy, and hence the affordable housing delivery strategy, which is a significant indicator for soundness in terms of LDP testing. Furthermore, the proposed regulatory changes could also have a consequent impact on the delivery of other objectives and policies of the LDP (transport infrastructure, school provision, the employment strategy, community facilities and open space provision etc), given that a significant amount of the LDP strategy will rely on the regeneration and investment opportunities that the delivery of new housing creates.

4.3 Further issues with respect to affordable housing delivery

To further substantiate our concerns with impact on the delivery of affordable housing, we have made an assessment of the likely impact of the proposed regulation changes on the Housing Minister's target for 7500 affordable homes over the next 4 years. In this respect, Table 2 of the Regulatory Impact Assessment indicates how many homes the Welsh Government believes will be constructed over the next 10 years. As such, if we consider

this table, (and assume 6480 homes would be built in 2013), the total amount of development the Welsh Government expects to be delivered over the next 4 years would be 26,270 homes.

Considering this figure, in order to deliver the Housing Minister's target of 7500 homes, the future percentage delivery of affordable housing will need to be roughly 30%. As you can see from the results of our viability analysis, this will be virtually impossible to achieve. We understand that not all affordable housing will be delivered through the planning system, however, the vast majority of it will. As such, with our viability analysis demonstrating that most areas are unviable with a target of 10%, the likelihood of the Housing Minister's target being achieved alongside the proposed regulation changes is extremely slim to say the least.

In terms of the above, we understand that the proposed regulations are not meant to be introduced until 2015, however, at this point the Housing Minister's target will still have two years remaining. As such, we believe the proposed regulation changes would still severely compromise the ability for the target to be realised, particularly given that for the remaining two years of the target's duration, the majority of areas in Wales will be capable of delivering zero or minimal affordable housing units at best.

4.4 The disparity between the cost of development in Wales and England

We believe it is important to note that the proposed regulatory changes, both in terms of Part L changes and fire suppression systems are not being proposed in England. As such, and given the significant cost and impact of the proposed changes, we believe the proposed regulation changes could put investment in house building, and indeed the economy, in Wales at significant risk. As we understand it, the next proposed changes to Part L of Building Regulations under consideration in England will be either amount to a further 8% increase on the 2010 regulations, or there will be no change proposed. Therefore, it is clear that there will be a significant gulf in construction costs between England and Wales if the proposed changes are introduced, which we are concerned will have a detrimental impact on the competitiveness of the homes building industry and the construction industry in Wales.

We are aware that the UK Government has voiced a commitment to deliver 'zero carbon' homes by 2016, however, this term currently remains undefined and the UK Zero Carbon

Hub is working tirelessly to identify how this commitment can be achieved in the current economic climate. Furthermore and perhaps more crucially, at no point has the UK Government released a set of definitive proposed changes or associated costs that will enable them to reach this stated goal. In this respect, as we currently stand, the Welsh Government has proposed changes to building regulations that will have a devastating impact on housing delivery and development viability in Wales, which are not replicated in England. Therefore, we must conclude that these proposals could have a significant detrimental impact on the competitiveness of the home building industry in Wales when introduced.

In addition to this, the UK Government currently operates a 'one in one out' strategy with respect to regulatory changes. Therefore, when the UK Government does identify what regulatory changes are required in order to deliver 'zero carbon' homes, it is likely that the consequent impact on the overall cost of development will be nullified, due to the requirement to remove existing regulation at comparative cost. In addition to this, we must also point out that Wales suffers far lower land values than those experienced across the border, which will no doubt place the UK Government at a significant advantage with respect to supporting any regulatory changes they ultimately propose to introduce.

In light of the above, we are extremely concerned with the potential impact of the proposed changes on the home building industry in Wales, particularly given that our industry will be in direct competition with the industry in England, where costs will be significantly lower and land values will be significantly higher. Furthermore, given that the Welsh Government has specifically advised the home building industry that the potential cost of these requirements must be taken into account immediately when purchasing land, there is no doubt that the proposed changes will put house building and construction companies in Wales at a severe competitive disadvantage to their counterparts in England, which in turn could have serious implications to regeneration and investment across Wales.

4.5 The importance of house building to the economy of Wales

We believe it is important when considering the impact of regulatory changes on the home building industry, to carefully consider the economic implications of not delivering the right amount of homes in Wales. In this respect, we believe it is important to highlight the economic benefits of providing new homes and the positive impact this can have on the national and local economies of Wales.

In terms of the economic benefits of new housing, our research demonstrates that for every new home built, there are 1.5 full time jobs are created directly in the construction industry, with a further 2/3 jobs created in the supply chain. When this is compared to the level of development proposed within the consultation proposals, (i.e. 67,860 homes over the 10 years to 2024), you can see there is the potential to create over 100,000 jobs directly in the construction industry and between 135,000 and 200,000 jobs in the supply chain. This would represent a significant investment in economic activity in Wales which must not be ignored. In addition to this, when you also consider that every £1 spent in the construction industry equates to £3 generated in the wider economy, you can see that investment in house building clearly represents a significant opportunity to generate investment and growth in the economy of Wales and to provide regeneration opportunities to the areas that need it most. We believe the Welsh Government should be extremely mindful of these issues when considering the introduction of the proposed regulatory changes, particularly given that the changes proposed could thwart the construction of homes in many areas of Wales.

4.6 The Welsh Government's recipe approach

Whilst we understand the need to provide a benchmark standard for development that would ensure compliance to the proposed changes, we believe there could be significant issues with respect to the recipe approach adopted and the practicalities of achieving the proposed recipe on all developments in Wales.

For example, the consultation information states that PV was used a 'proxy' for renewable energy technologies, because it represents the most cost effective way to generate energy via renewable sources. However, whilst we accept this might be the case, given the level of PV that would be required on a roof space in order to achieve the proposed regulatory targets, there is absolutely no guarantee that the recipe will be practical to adopt on all developments in Wales. We understand that the consultation documentation recognises this might be an issue in some circumstances, e.g for flatted development, however, we believe that due to the topography, nature and location of many of much of the developable land in Wales, there is a significant risk that the recipe approach might not represent a practical solution on a significant proportion of potential development sites in Wales.

If this is the case, then clearly the cost assumptions within the assessment would be significantly compromised, given that the actual cost of achieving the proposed targets would be far greater than has been assumed. This would therefore further compromise the viability assessment and hence, the consequent impact on land values and the delivery of housing, including affordable housing in many areas of Wales.

In addition to the above, our members have also voiced concern over the standards set for external walls in the fabric recipe. We believe that due to the suggested standard, the thickness of the external wall could cause significant challenges with respect to construction and therefore, we believe this particular part of the recipe needs to be reconsidered.

4.7 National Planning Policy Review

The consultation asks what role planning policy should play alongside the proposed changes to building regulations. We would comment as follows:-

We believe planning policy should not duplicate building regulations, on a national or local level.

We also believe planning policy should try and facilitate large scale renewable energy projects, as this will ultimately represent the best way to improve the energy efficiency of all buildings, particularly the existing residential and non residential stock, which will clearly represent the biggest challenge in terms of reducing carbon emissions.

In terms of the Code for Sustainable Homes, we believe careful consideration needs to be given on the future of the Code, particularly where its requirements overlap with separate legislation. In this respect, we believe it is important to retain a 'national perspective' to setting standards for newly built homes, in order to ensure consistency. As such, if the requirement to adhere to the Code were to be removed from national guidance, we believe national guidance should also include measures to ensure each individual local authority does not try and set a separate requirement for the Code to be adhered to within local planning policy. In addition to this, national guidance should also ensure that local authorities do not set individual requirements, through local planning policy, for the sections of the Code that would become obsolete due to the advancement of separate legislation.

In terms of the issue of allowing local authorities to set higher standards on certain developments, we do not see how this can be possible in most local authorities, particularly given the results of the viability analysis above. However, in recognition that there might be a certain minority of sites that could support higher standards, we believe this should be dealt with on an individual site by site basis and not through overarching policies that prescribe an uplift in standards simply because a site might be labelled 'strategic'.

4.8 Compliance and Performance

The consultation mentions the possibility of creating a checklist for compliance. In this respect, we believe a properly constructed/worded compliance checklist, which is developed in consultation with the industry, would be appropriate.

5. Final Conclusions

In light of the evidence provided above, we do not believe proposed options, as set out within Section 1 of the consultation documentation (and repeated below), should be pursued.

- *A phased 40% improvement in Part L 2010 for new housing with an effective date of January 2015*
- *Staged 25% improvement in 2014 followed by a review in 2016 to increase standards to zero carbon before the end of the decade;*

In summary we believe:-

1. Both options would have a severe detrimental impact on land values and hence, the delivery of housing in Wales.
2. Both options would impact severely on the delivery of affordable housing in vast areas of Wales, which would directly conflict with a key national and local government priority. In this respect, both options would also seriously compromise

the ability for the Welsh Government to honour the commitment to delivery 7500 affordable homes in the next 4 years.

3. Both options would place the home building and construction industries in Wales at a severe competitive disadvantage to our neighbours in England.
4. Both options would severely impact on the ability for local authorities, regions and Wales as a whole, with respect to job creation and attracting regeneration and investment.
5. Neither option would provide the most practical or feasible route to enable the Welsh Government to achieve the European target for 'near zero energy' by 2020.
6. Both options would represent a net cost to society, when the costs and benefits are analysed properly.
7. Both options have the potential to severely compromise the soundness of adopted and emerging LDPs in many areas of Wales.
8. Neither option would be practical in terms of ensuring delivery in all areas of Wales, particularly given the issues prevalent with the nature and topographic character of the potentially developable land in Wales.

Further to the above, clearly the additional requirement for fire suppression systems will further exacerbate the issues and concerns we describe above and therefore, we also do not believe this proposed change should be pursued through alterations to building regulations or via any other available means.

In terms of our proposed way forward on this matter, we do not believe the Welsh Government should pursue any changes to building regulations until there is clear and unequivocal evidence to demonstrate that any changes proposed would be viable, deliverable and appropriate for adoption in Wales.

End.

Richard Price

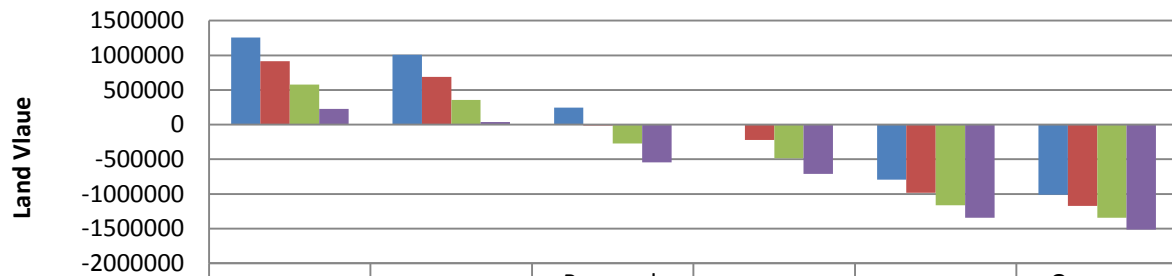
The Home Builders Federation

30th October 2012

APPENDIX 1

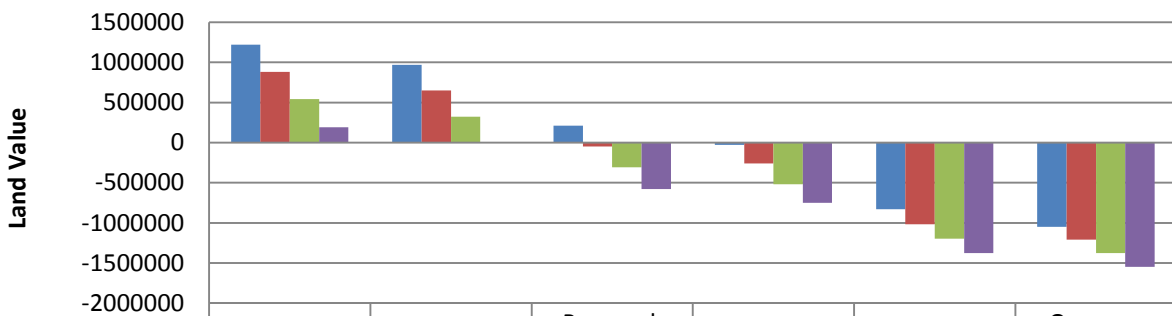
Bridgend

Bridgend residual values with 25% improvement



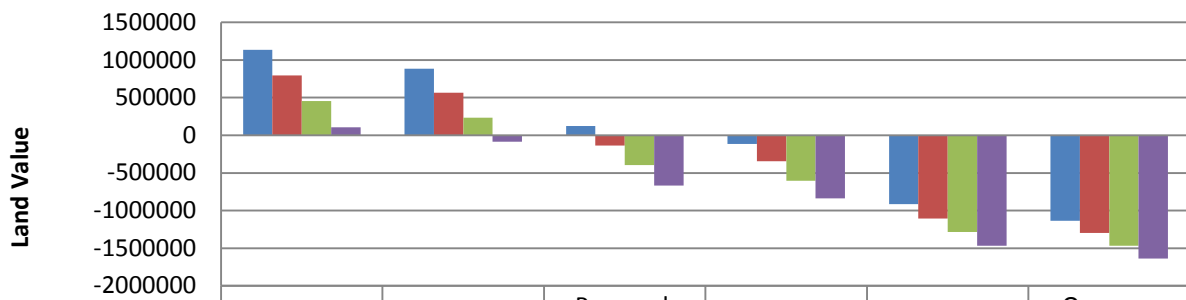
	Porthcawl	Rural	Pencoed and Hinterland	Bridgend	Western Valleys	Ogmore, Garw & U Llynfi Valley
0% Affordable	1257180	1007180	247180	7180	-792820	-1012820
10% Affordable	917180	687180	-12820	-222820	-982820	-1172820
20% Affordable	577180	357180	-272820	-482820	-1162820	-1342820
30% Affordable	227180	37180	-542820	-712820	-1342820	-1512820

Bridgend residual values with 40% improvement



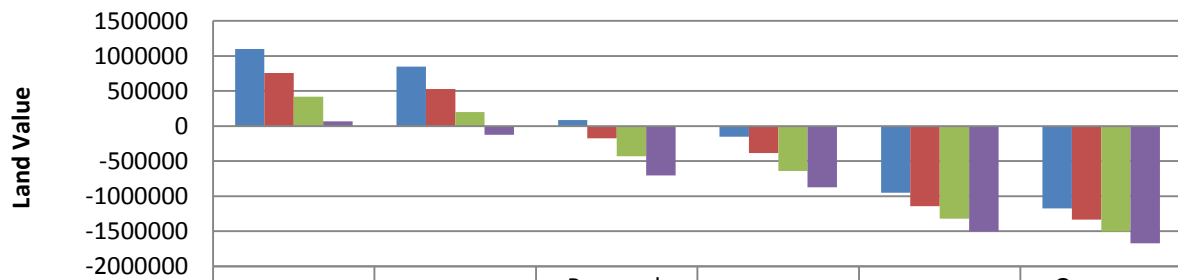
	Porthcawl	Rural	Pencoed and Hinterland	Bridgend	Western Valleys	Ogmore, Garw & U Llynfi Valley
0% Affordable	1221180	971180	211180	-28820	-828820	-1048820
10% Affordable	881180	651180	-48820	-258820	-1018820	-1208820
20% Affordable	541180	321180	-308820	-518820	-1198820	-1378820
30% Affordable	191180	1180	-578820	-748820	-1378820	-1548820

Bridgend residual values with 25% plus sprinklers



	Porthcawl	Rural	Pencoed and Hinterland	Bridgend	Western Valleys	Ogmore, Garw & U Llynfi Valley
0% Affordable	1134180	884180	124180	-115820	-915820	-1135820
10% Affordable	794180	564180	-135820	-345820	-1105820	-1295820
20% Affordable	454180	234180	-395820	-605820	-1285820	-1465820
30% Affordable	104180	-85820	-665820	-835820	-1465820	-1635820

Bridgend residual values with 40% plus sprinklers

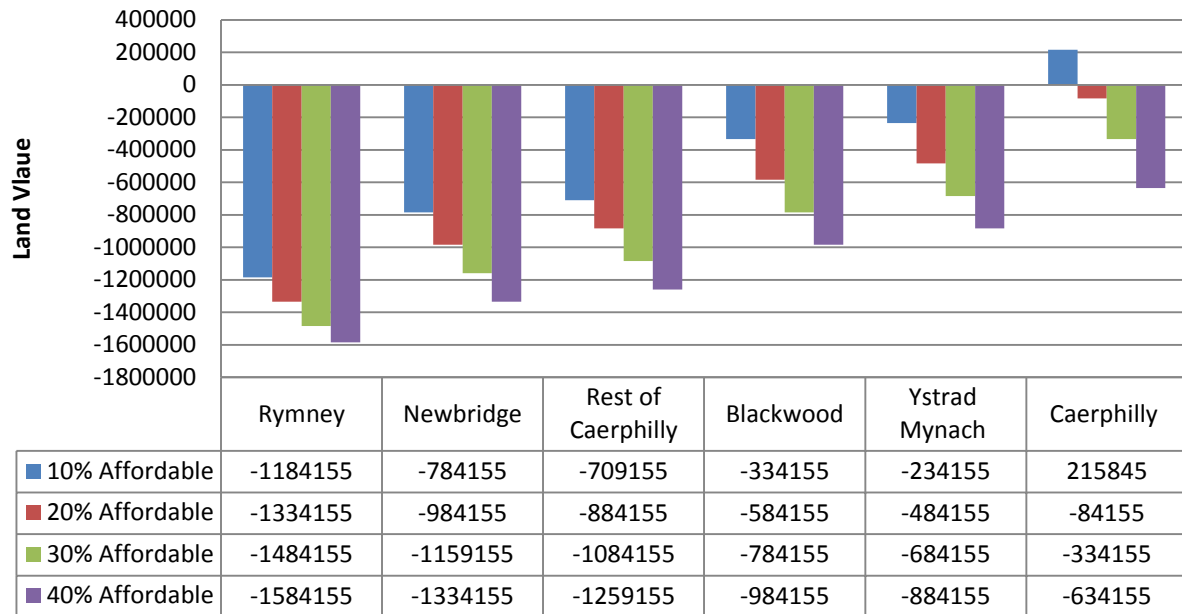


	Porthcawl	Rural	Pencoed and Hinterland	Bridgend	Western Valleys	Ogmore, Garw & U Llynfi Valley
0% Affordable	1098180	848180	88180	-151820	-951820	-1171820
10% Affordable	758180	528180	-171820	-381820	-1141820	-1331820
20% Affordable	418180	198180	-431820	-641820	-1321820	-1501820
30% Affordable	68180	-121820	-701820	-871820	-1501820	-1671820

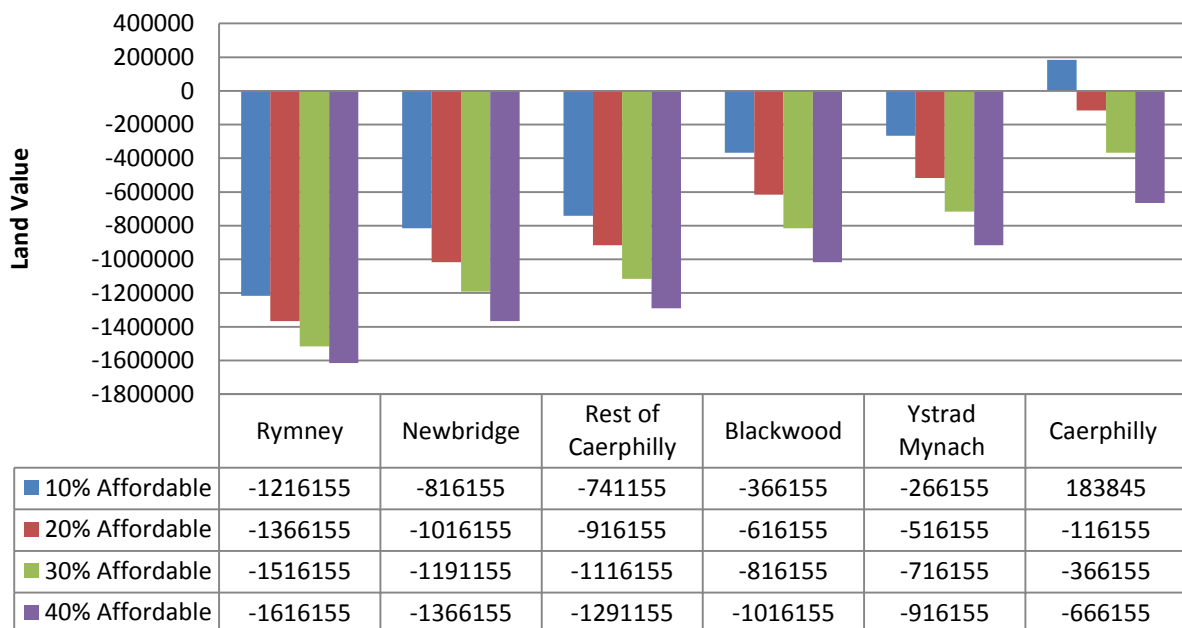
APPENDIX 2

Caerphilly

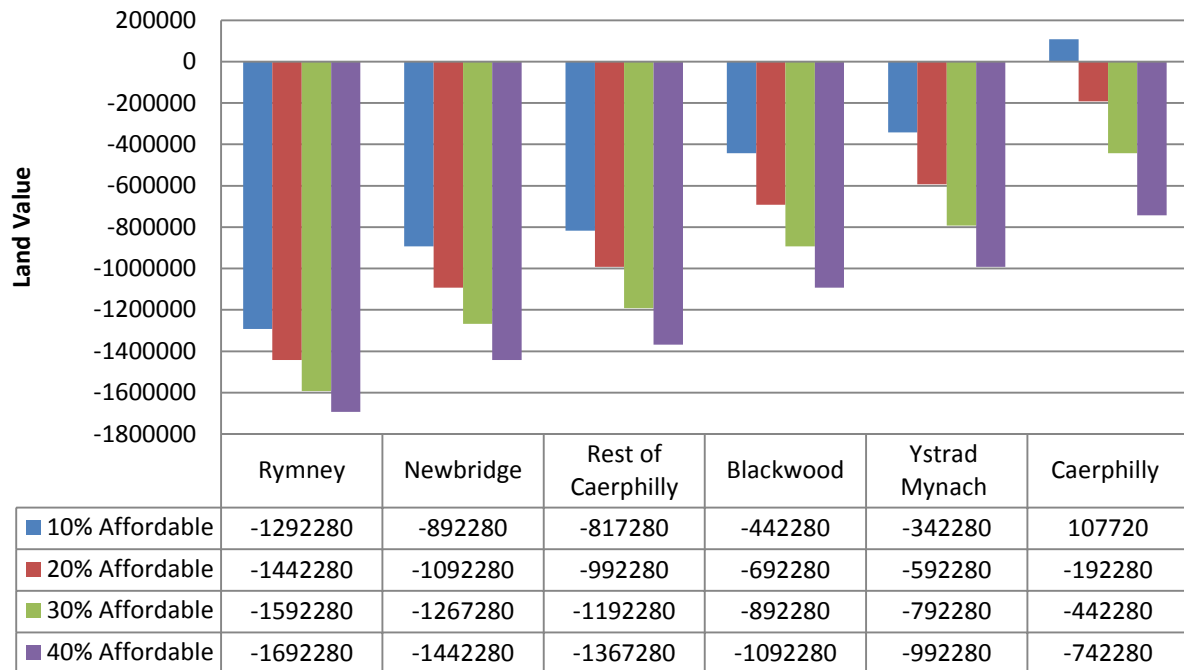
Caerphilly residual values with 25% improvement



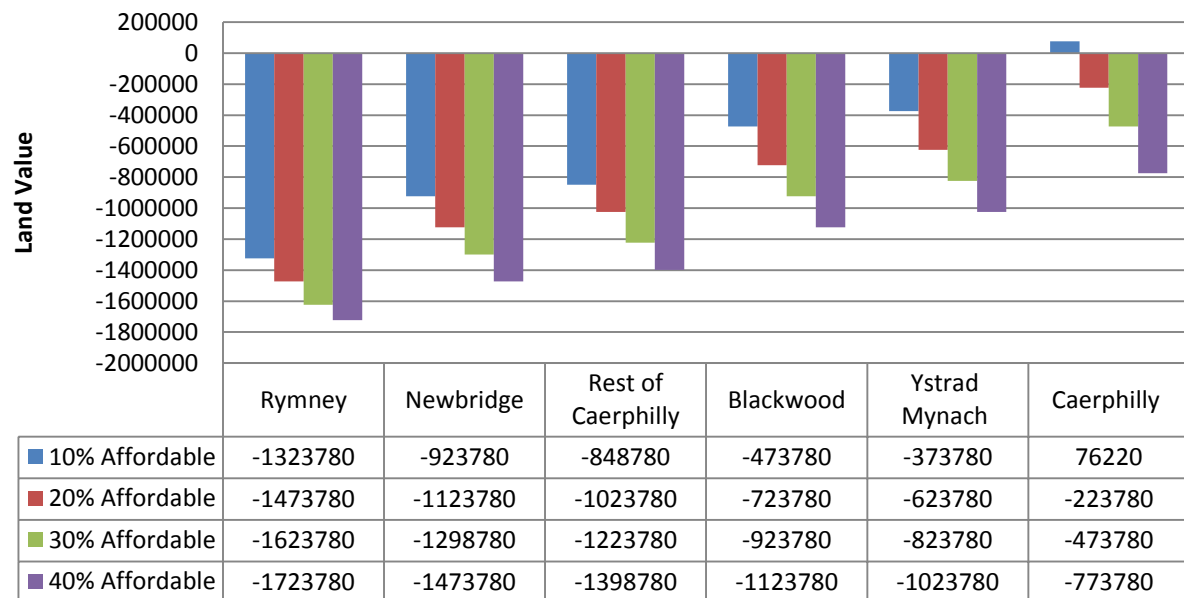
Caerphilly residual values with 40% improvement



Caerphilly residual values with 25% plus sprinklers



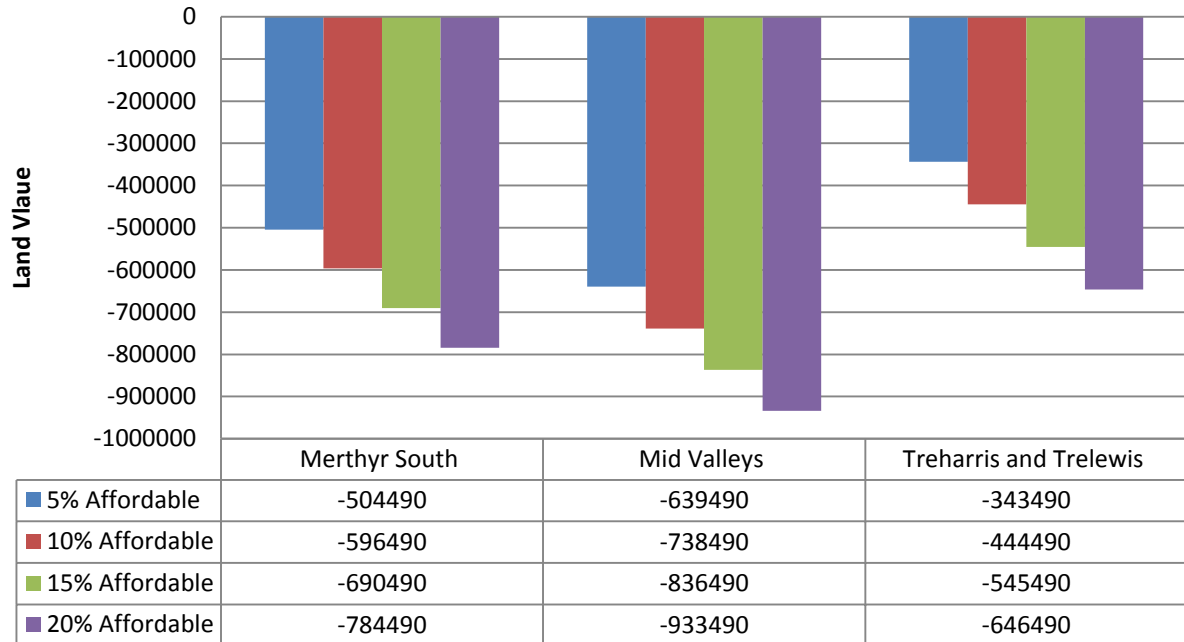
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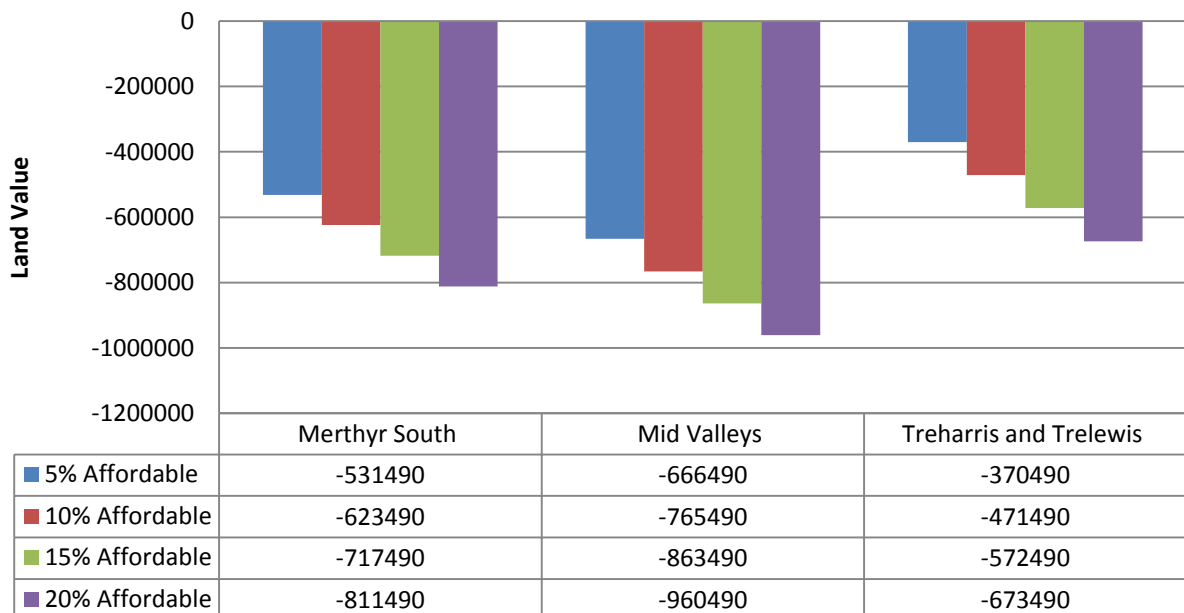
APPENDIX 3

Merthyr

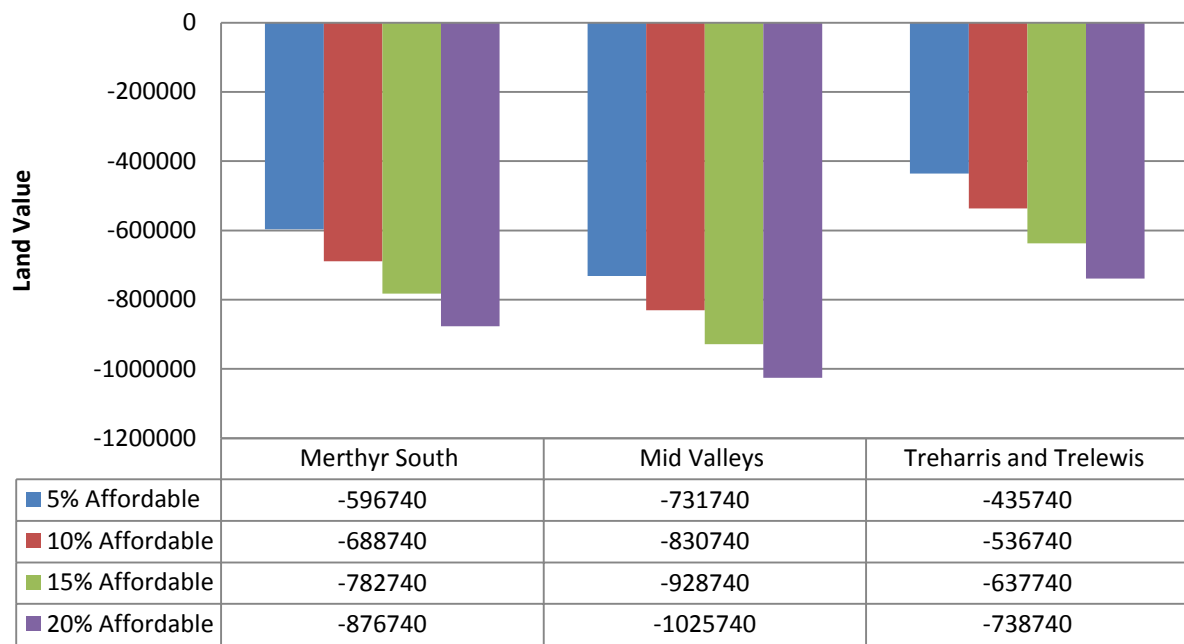
Merthyr residual values with 25% improvement



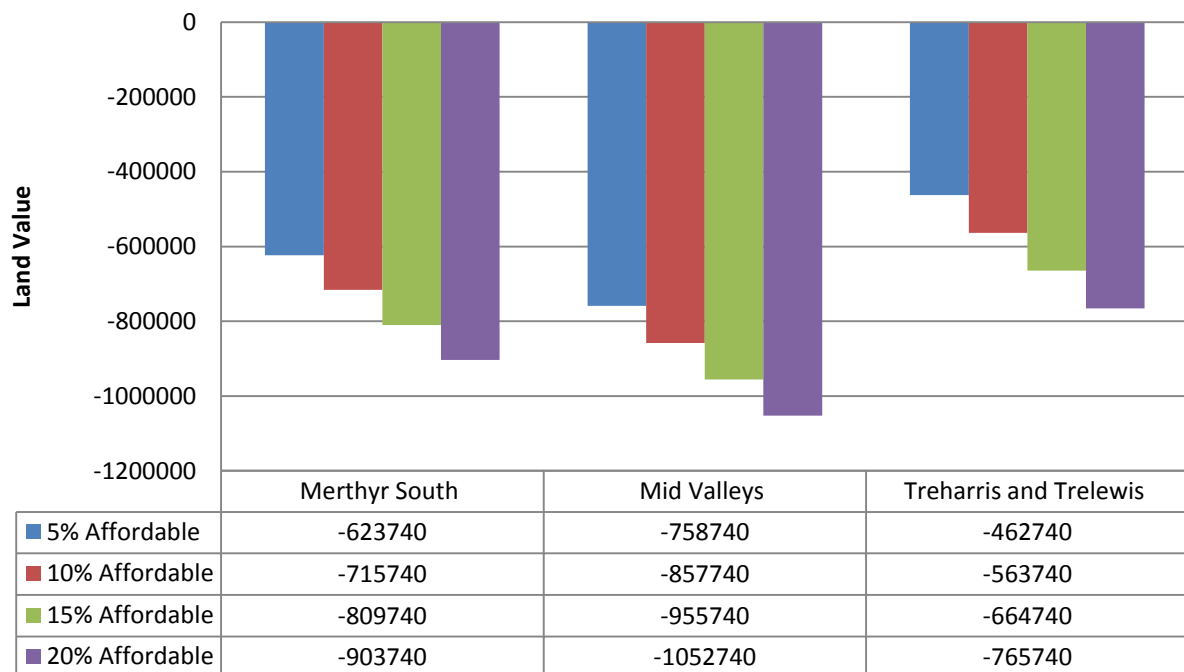
Merthyr residual values with 40% improvement



Merthyr residual values with 25% plus sprinklers



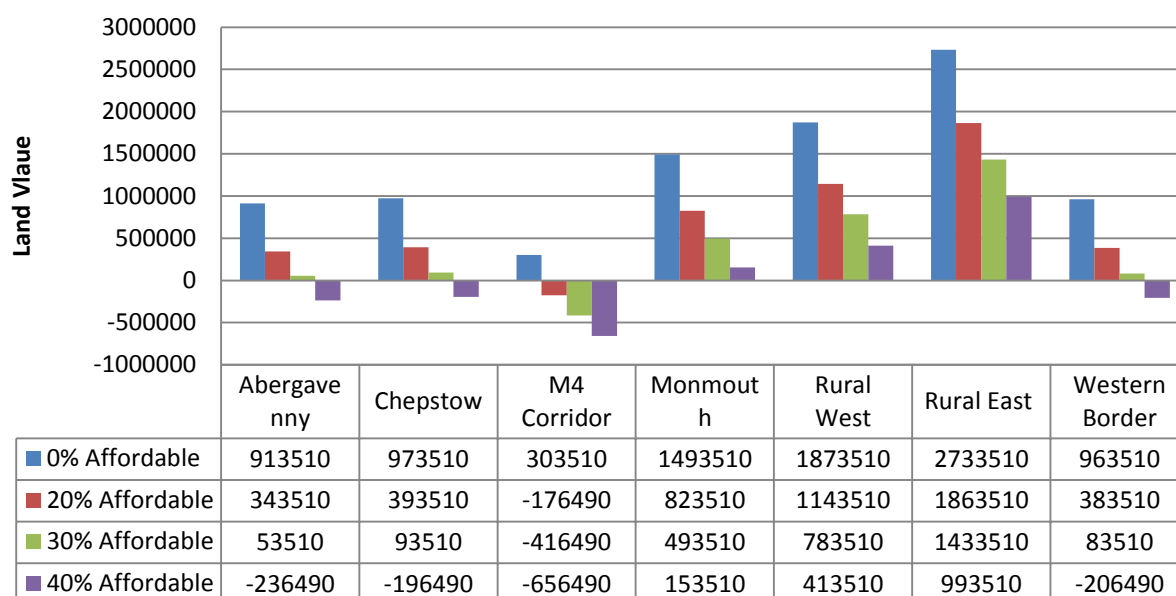
Merthyr residual values with 40% plus sprinklers



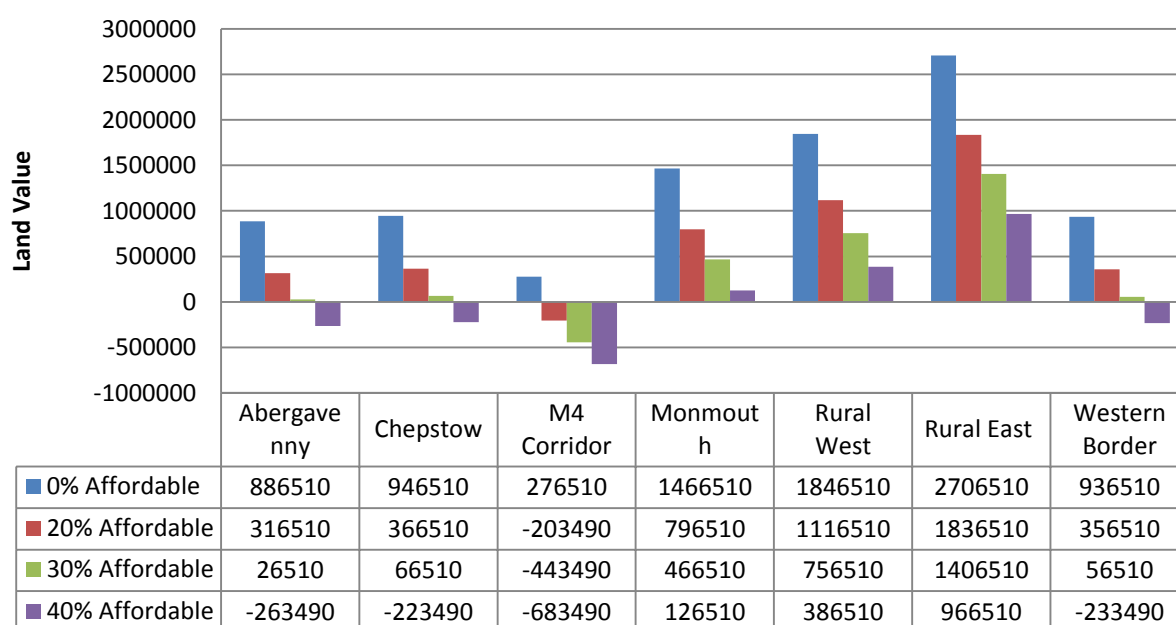
APPENDIX 4

Monmouthshire

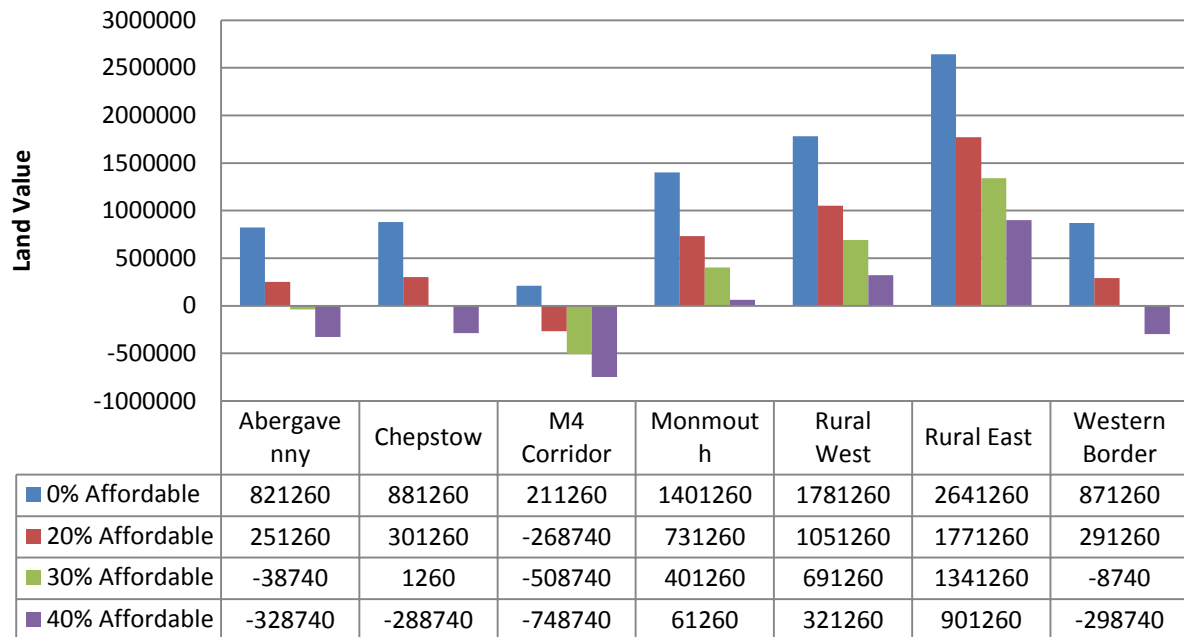
Monmouthshire residual values with 25% improvement



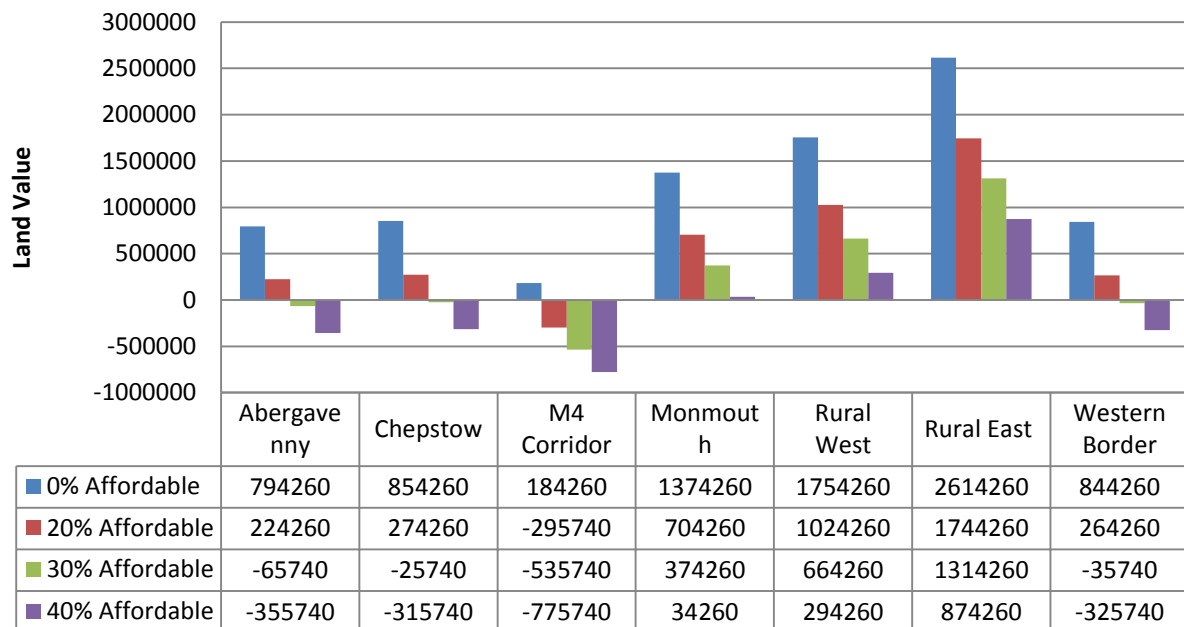
Monmouthshire residual values with 40% improvement



Monmouthshire residual values with 25% plus sprinklers



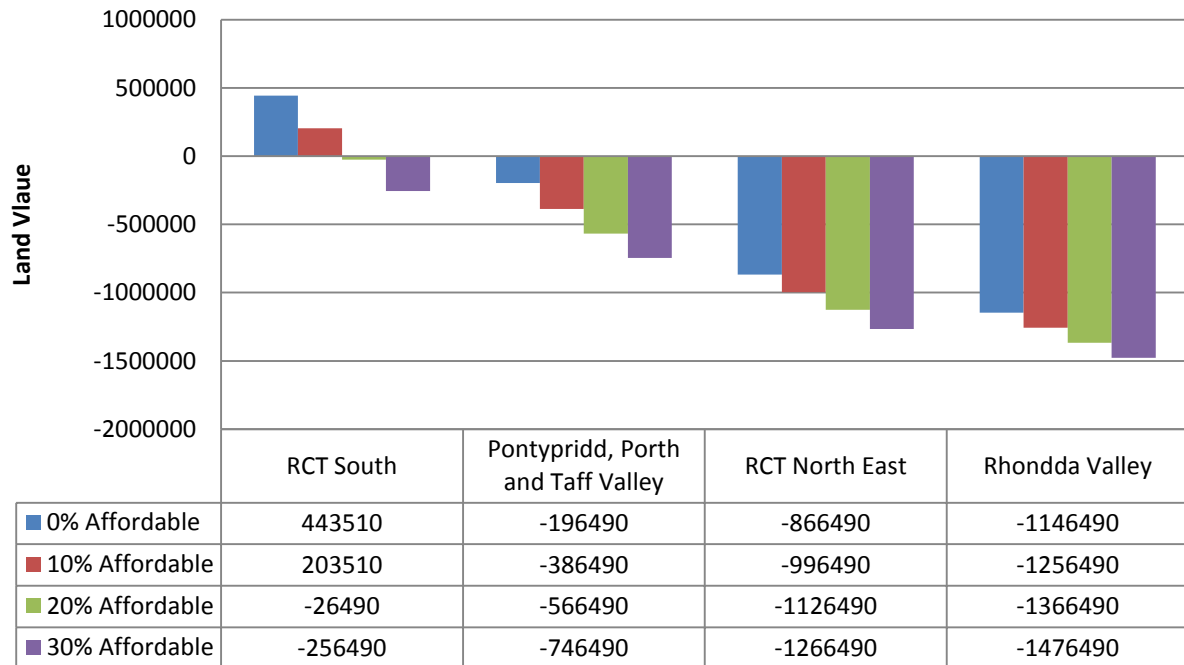
Monmouthshire residual values with 40% plus sprinklers



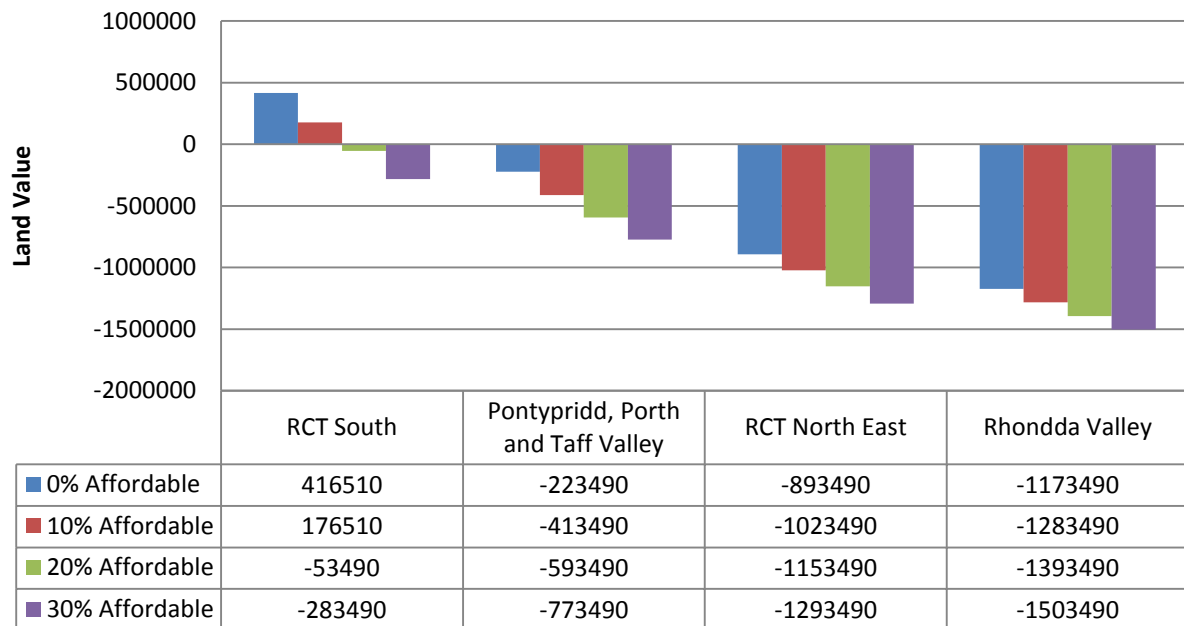
APPENDIX 5

RCT

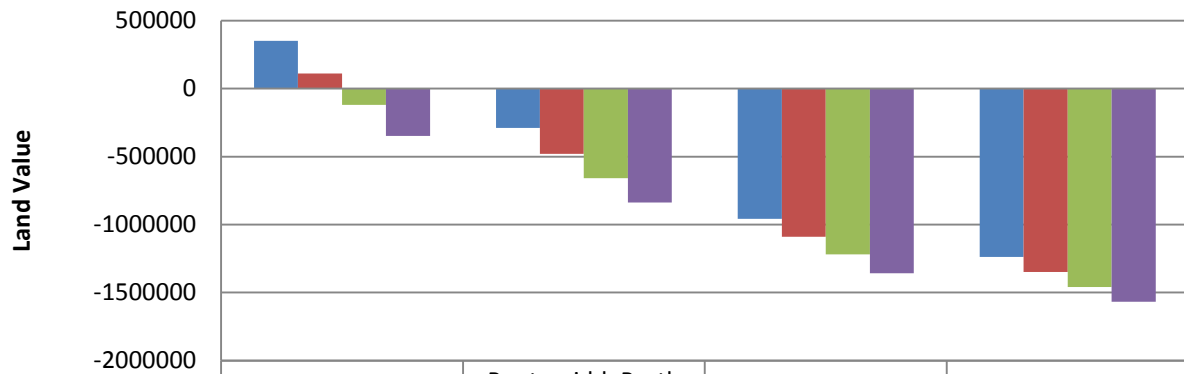
RCT residual values with 25% improvement



RCT residual values with 40% improvement

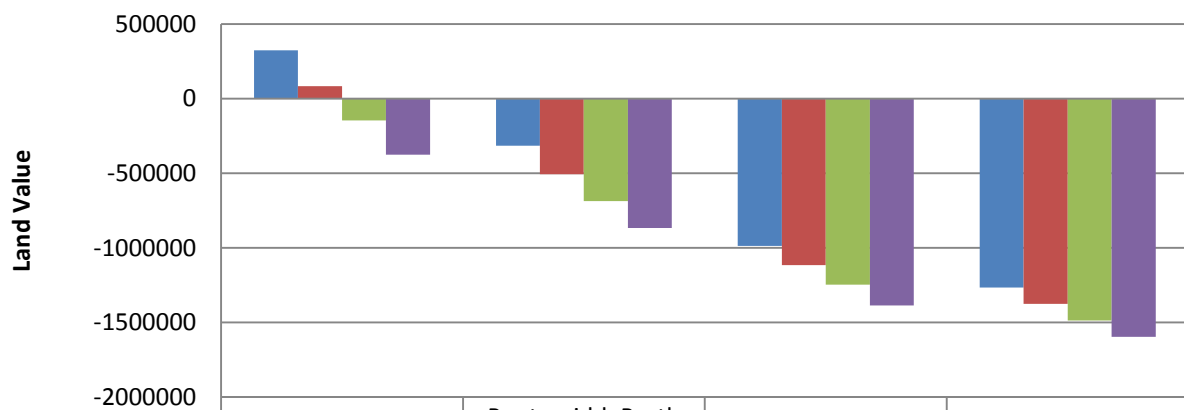


RCT residual values with 25% plus sprinklers



	RCT South	Pontypridd, Porth and Taff Valley	RCT North East	Rhondda Valley
0% Affordable	351260	-288740	-958740	-1238740
10% Affordable	111260	-478740	-1088740	-1348740
20% Affordable	-118740	-658740	-1218740	-1458740
30% Affordable	-348740	-838740	-1358740	-1568740

RCT residual values with 40% plus sprinklers

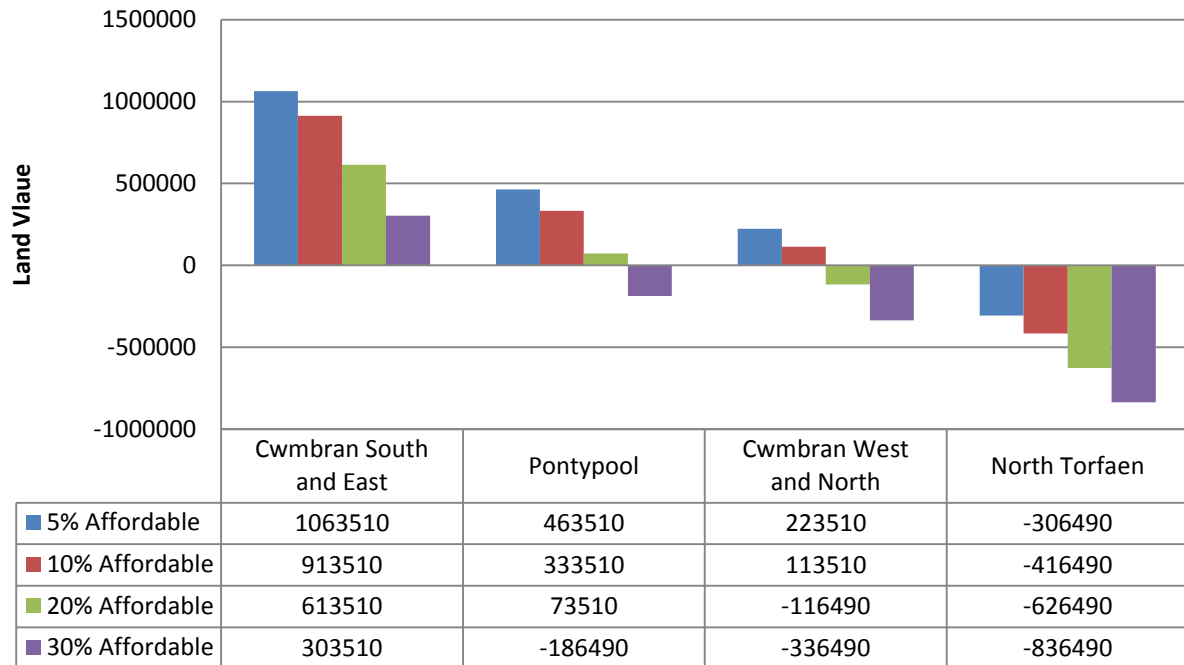


	RCT South	Pontypridd, Porth and Taff Valley	RCT North East	Rhondda Valley
0% Affordable	324260	-315740	-985740	-1265740
10% Affordable	84260	-505740	-1115740	-1375740
20% Affordable	-145740	-685740	-1245740	-1485740
30% Affordable	-375740	-865740	-1385740	-1595740

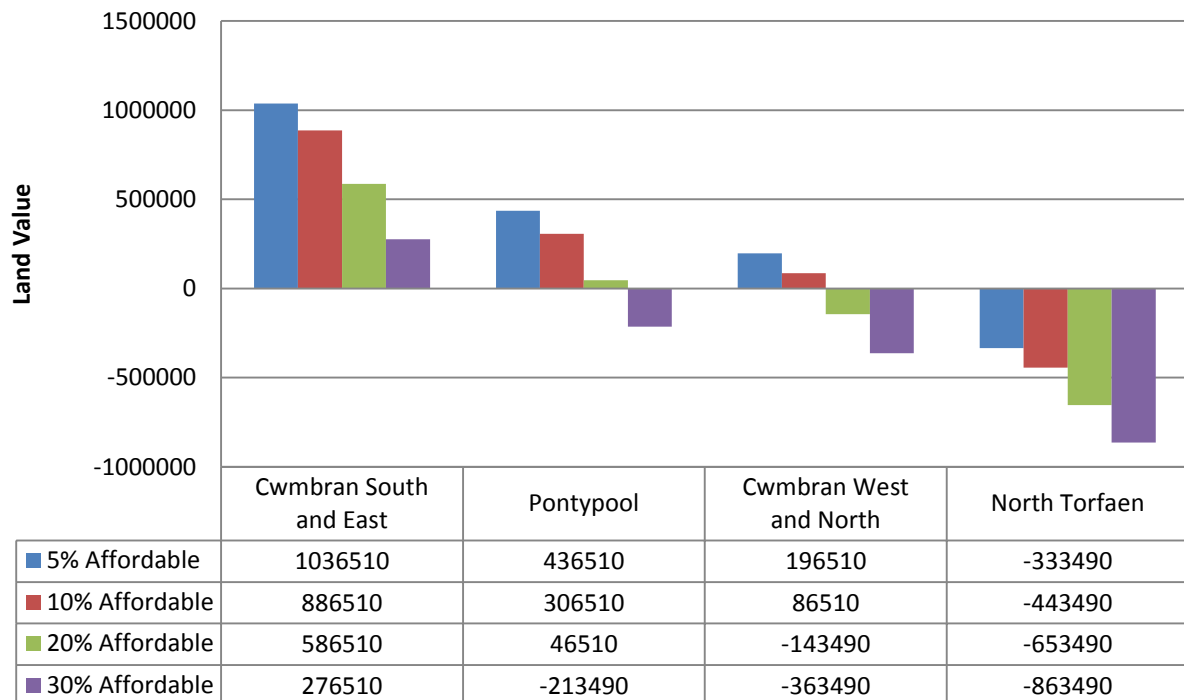
APPENDIX 6

Torfaen

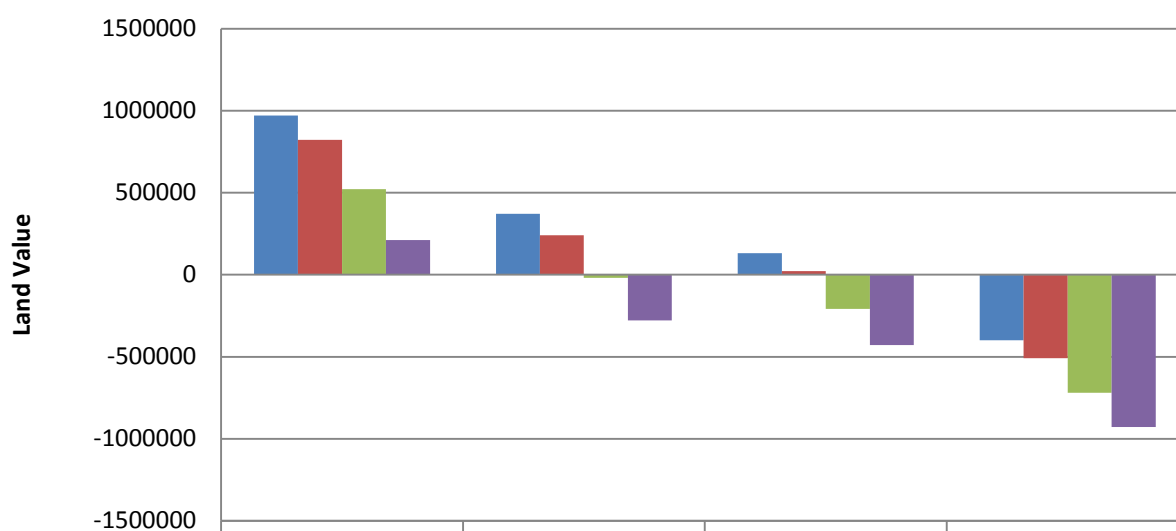
Torfaen residual values with 25% improvement



Torfaen residual values with 40% improvement

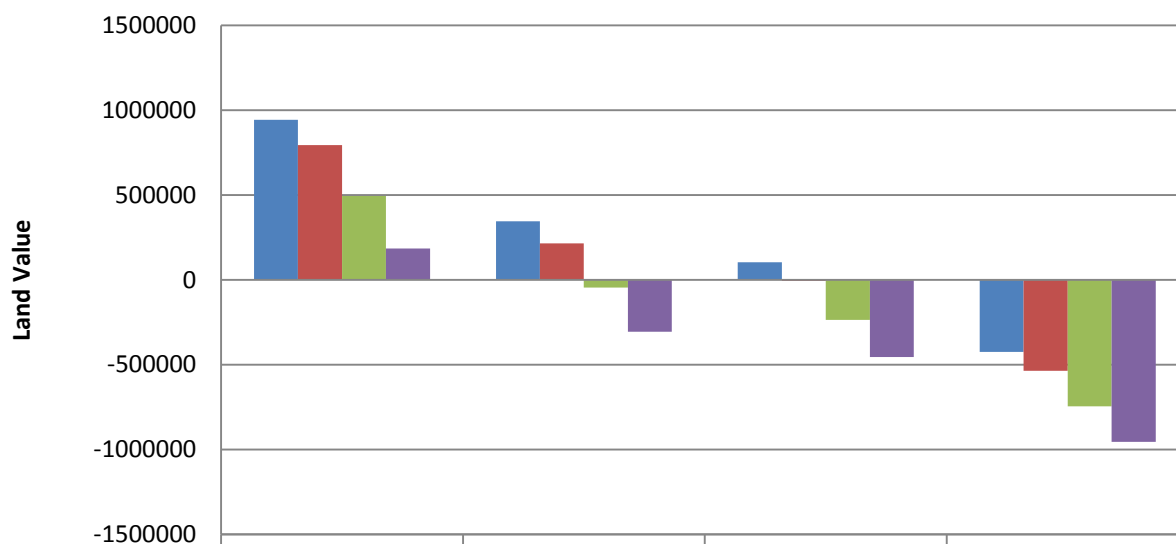


Torfaen residual values with 25% plus sprinklers



	Cwmbran South and East	Pontypool	Cwmbran West and North	North Torfaen
5% Affordable	971260	371260	131260	-398740
10% Affordable	821260	241260	21260	-508740
20% Affordable	521260	-18740	-208740	-718740
30% Affordable	211260	-278740	-428740	-928740

Torfaen residual values with 40% plus sprinklers

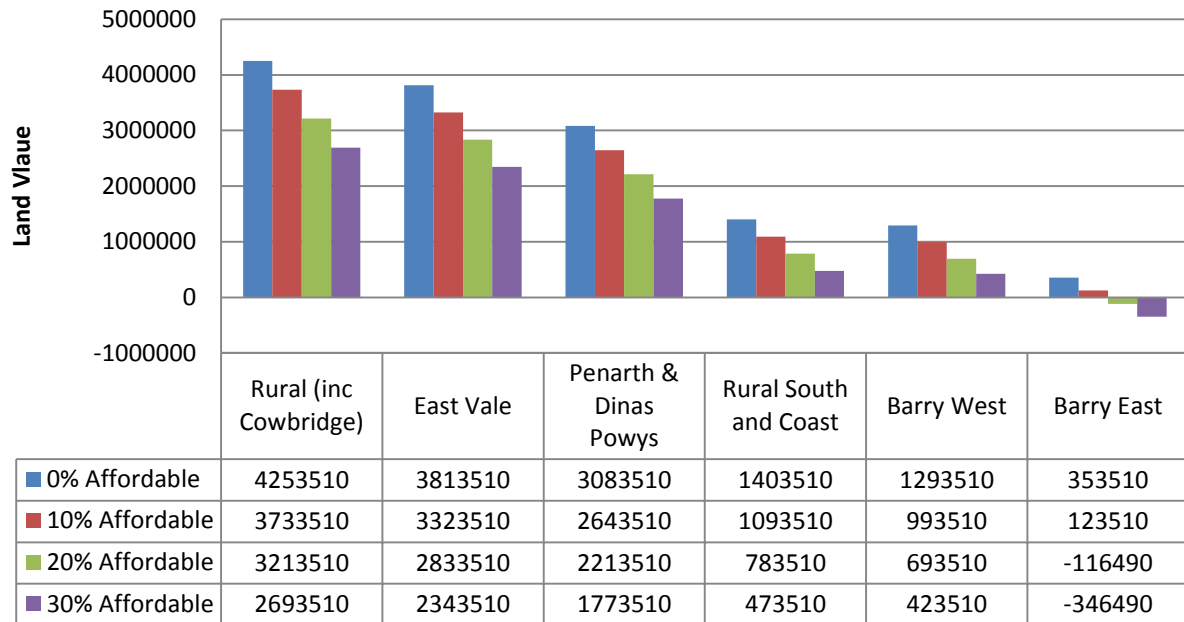


	Cwmbran South and East	Pontypool	Cwmbran West and North	North Torfaen
5% Affordable	944260	344260	104260	-425740
10% Affordable	794260	214260	-5740	-535740
20% Affordable	494260	-45740	-235740	-745740
30% Affordable	184260	-305740	-455740	-955740

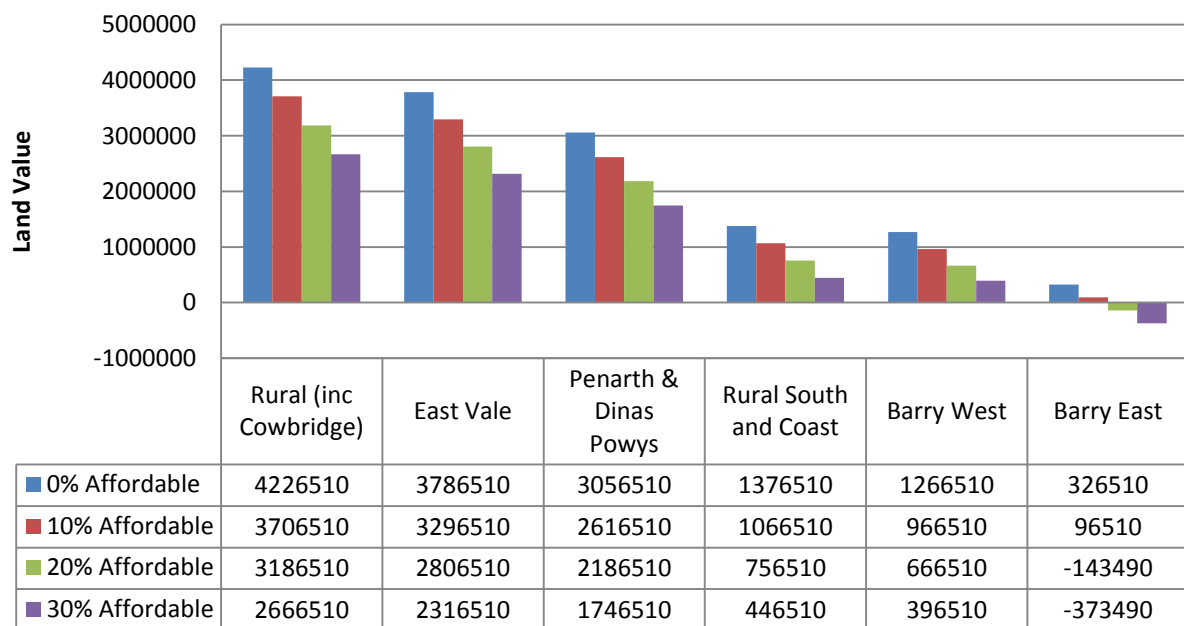
APPENDIX 7

Vale of Glamorgan

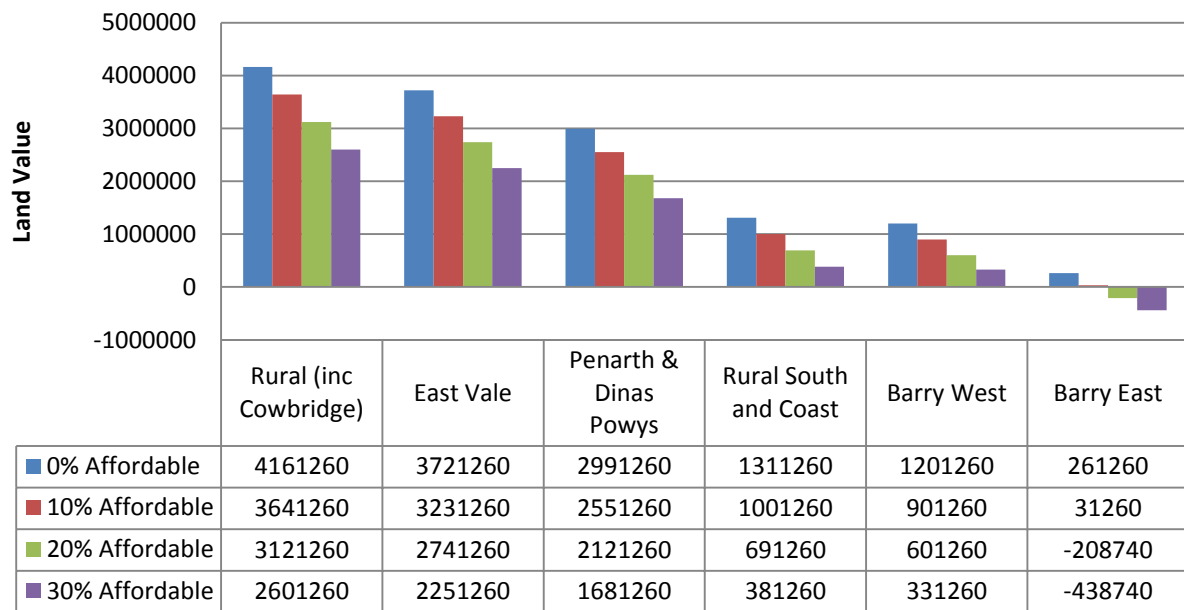
VOG residual values with 25% improvement



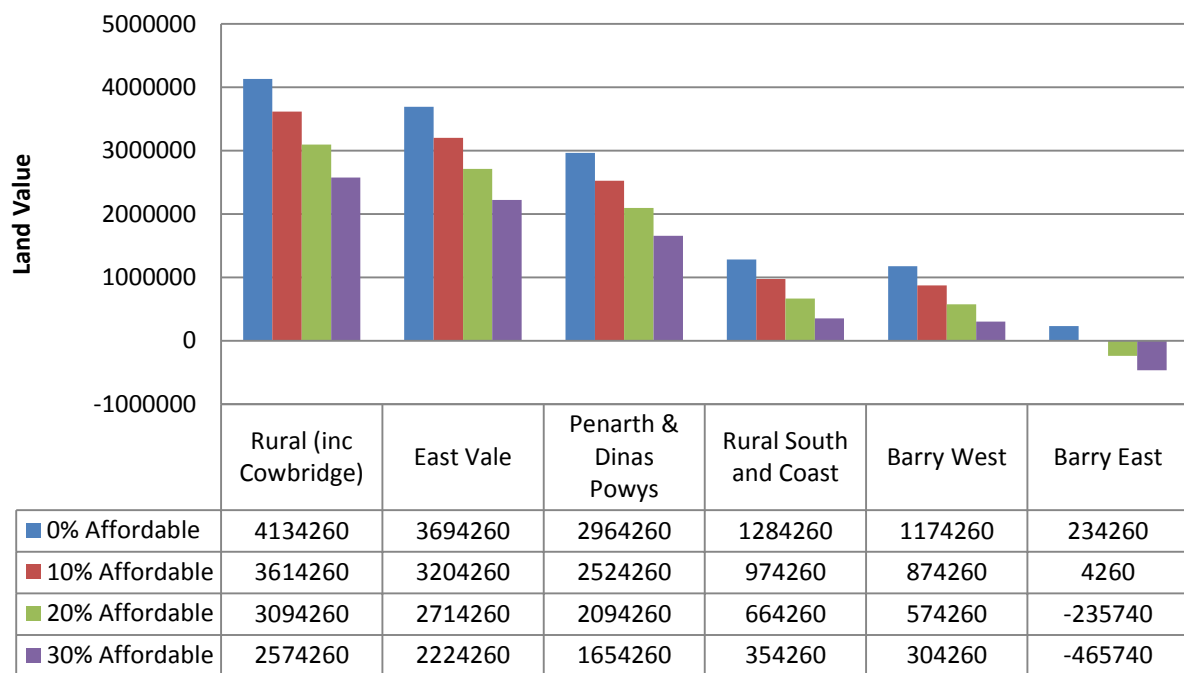
VoG residual values with 40% improvement



VoG residual values with 25% plus sprinklers



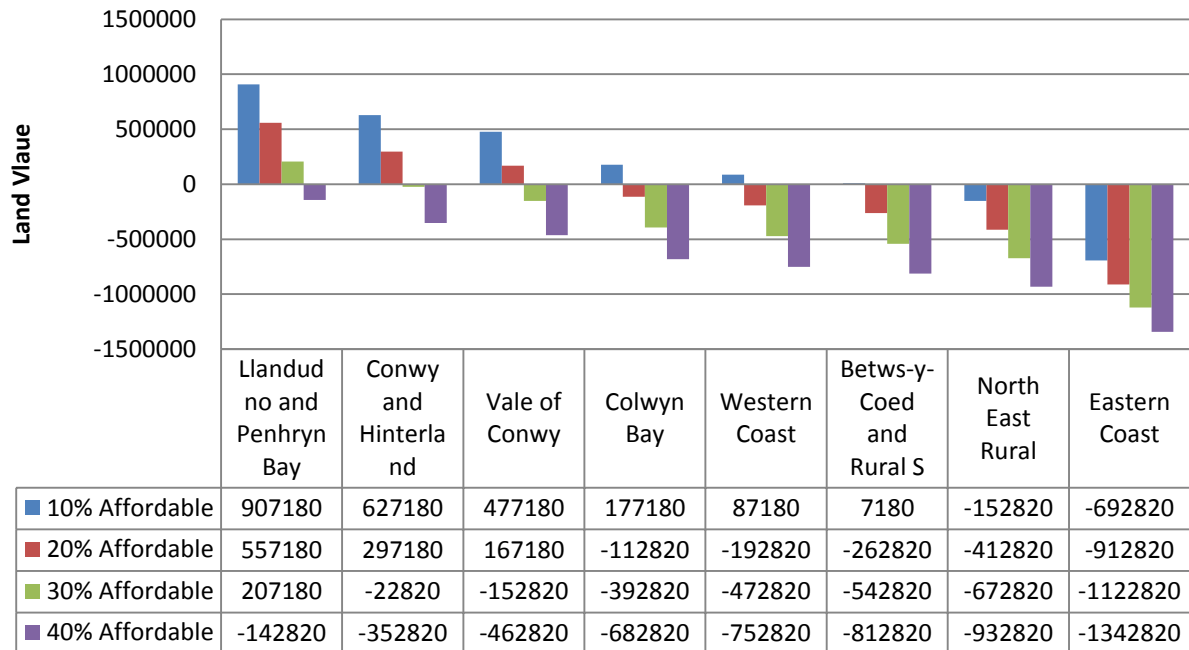
VoG residual values with 40% plus sprinklers



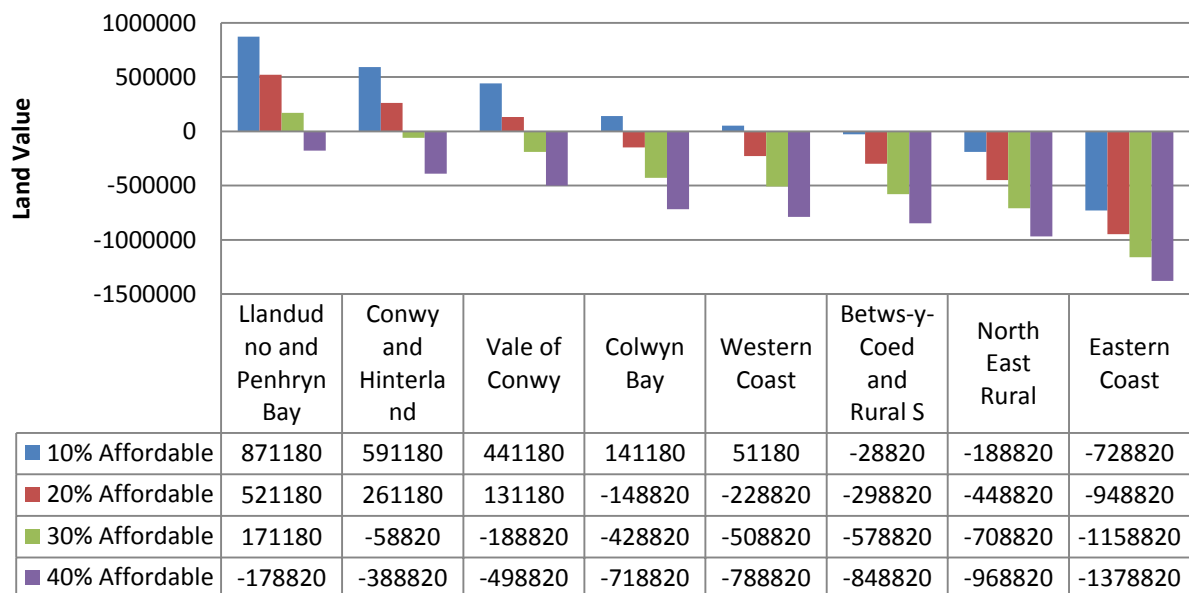
APPENDIX 8

Conwy

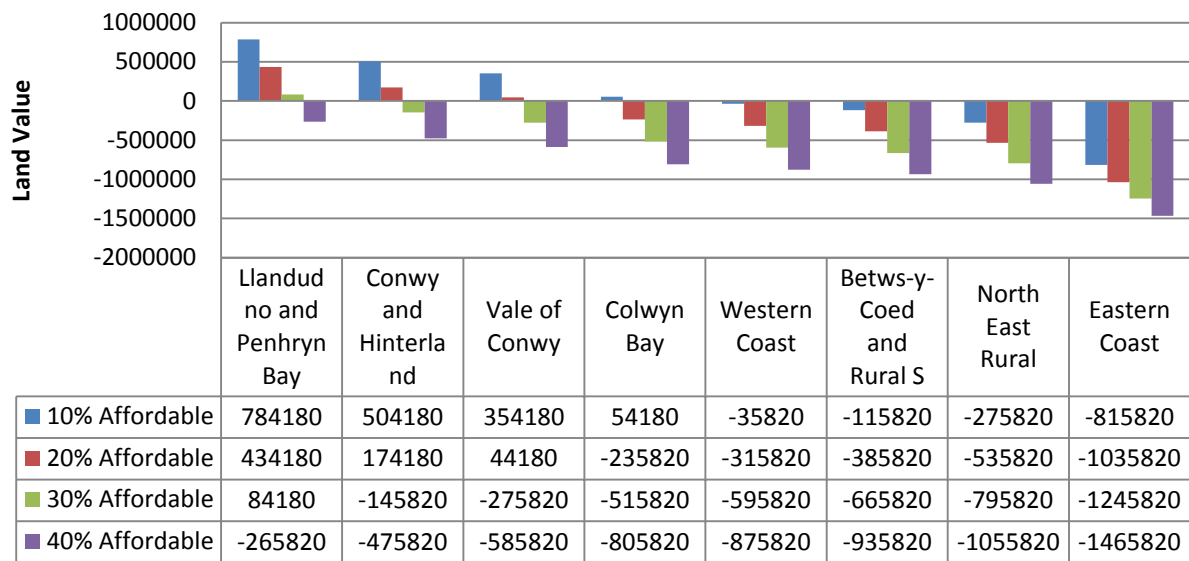
Conwy residual values with 25% improvement



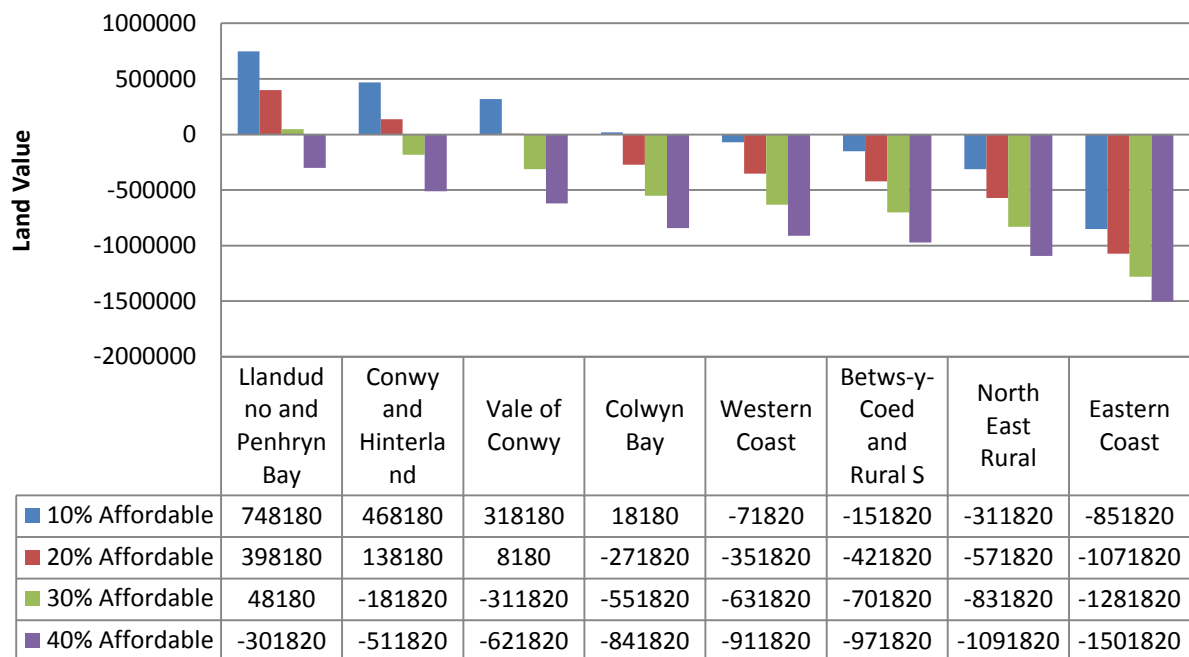
Conwy residual values with 40% improvement



Conwy residual values with 25% plus sprinklers



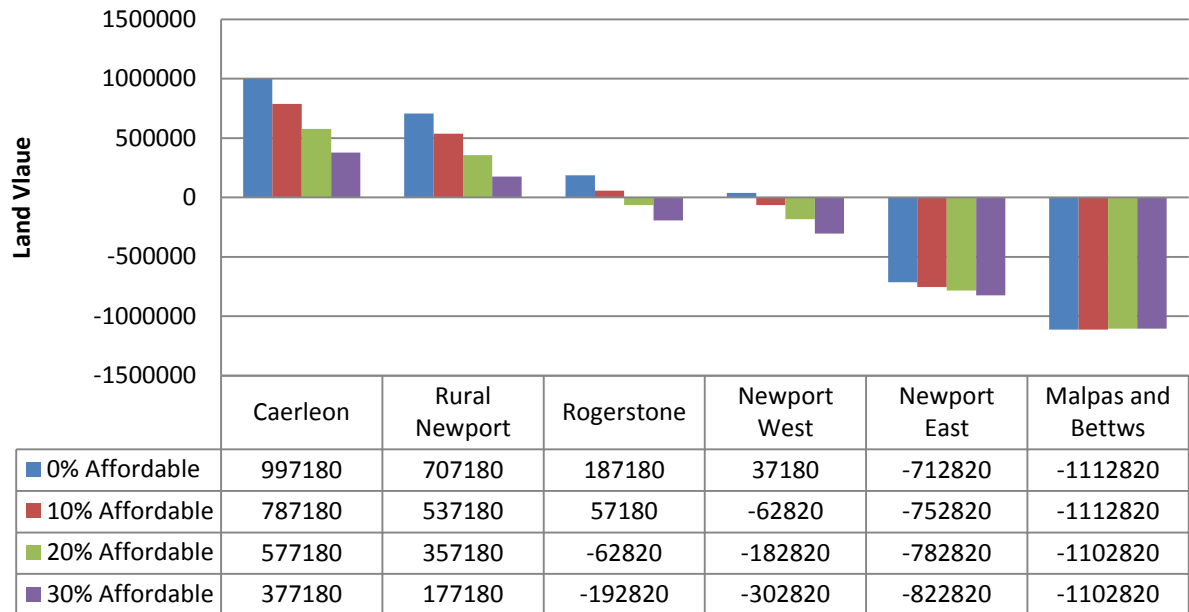
Conwy residual values with 40% plus sprinklers



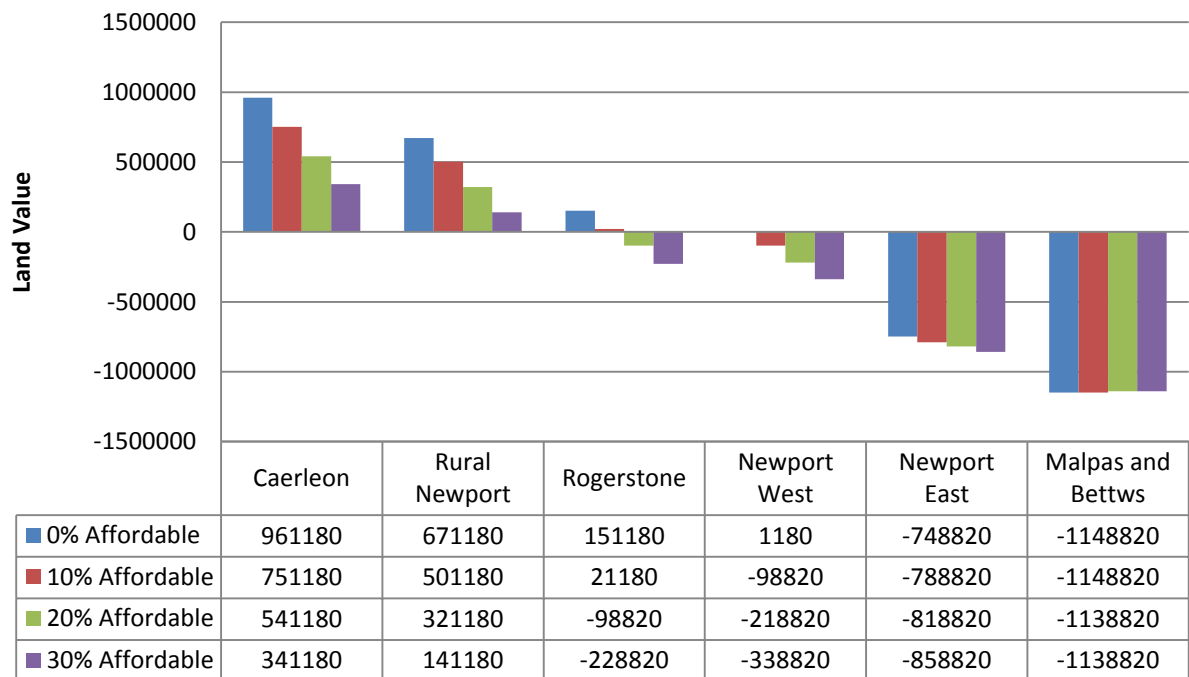
APPENDIX 9

Newport

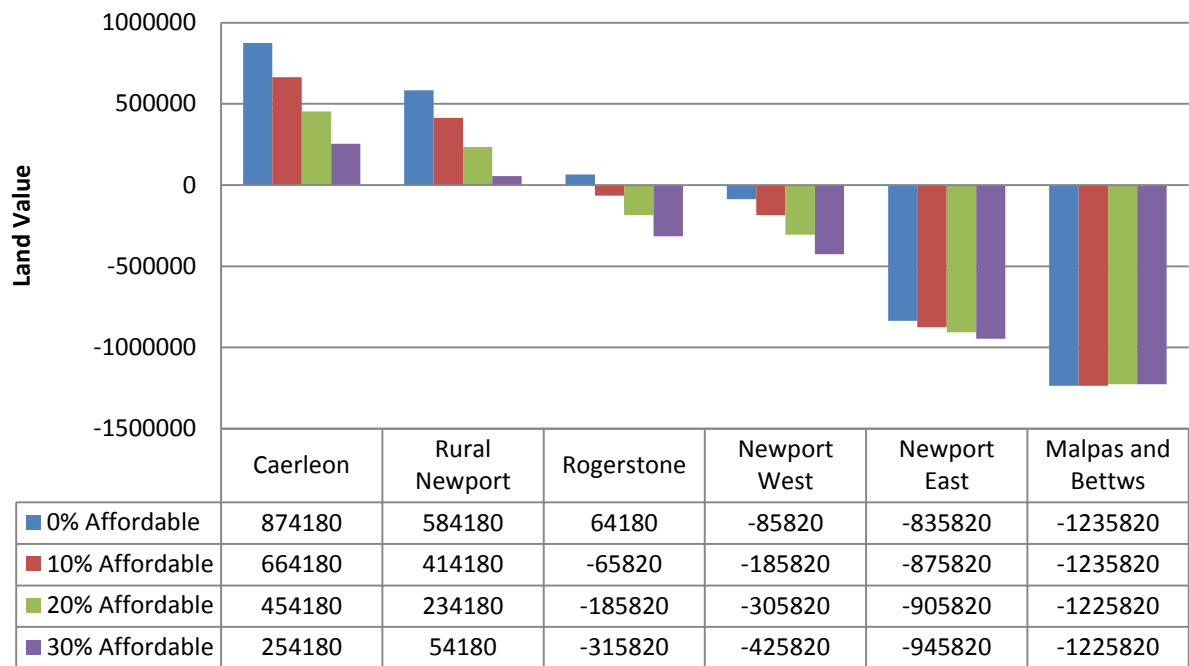
Newport residual values with 25% improvement



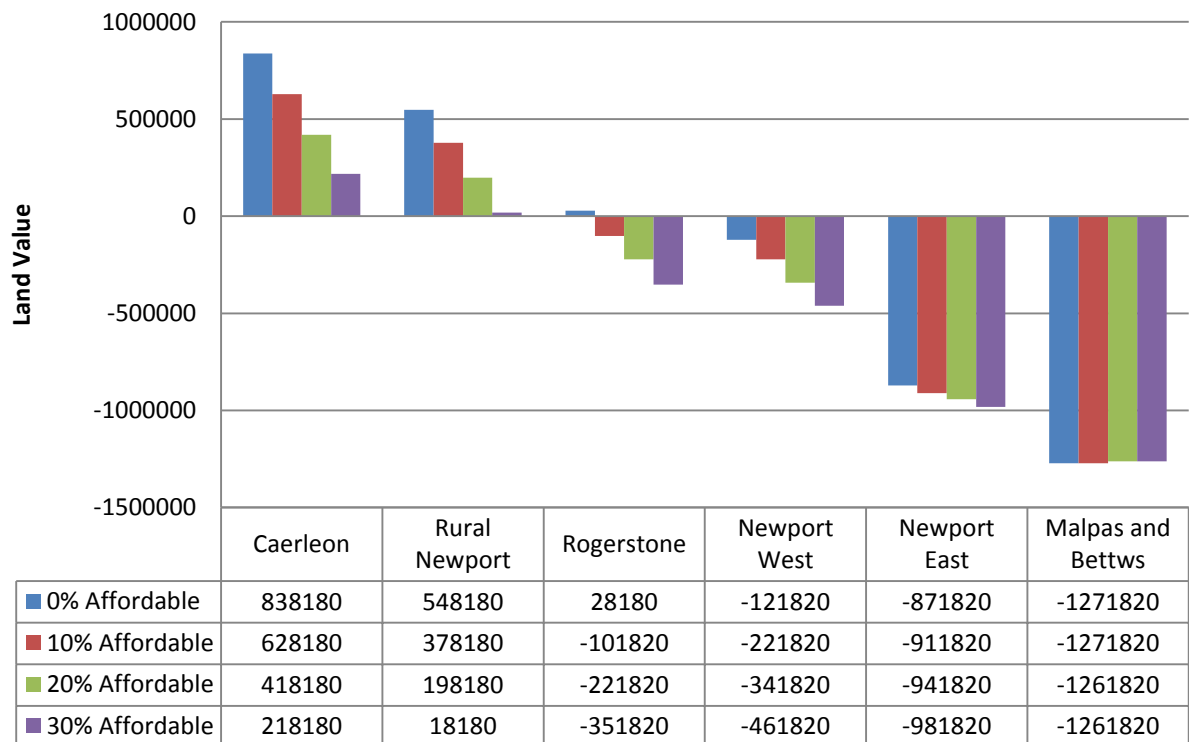
Newport residual values with 40% improvement



Newport residual values with 25% plus sprinklers



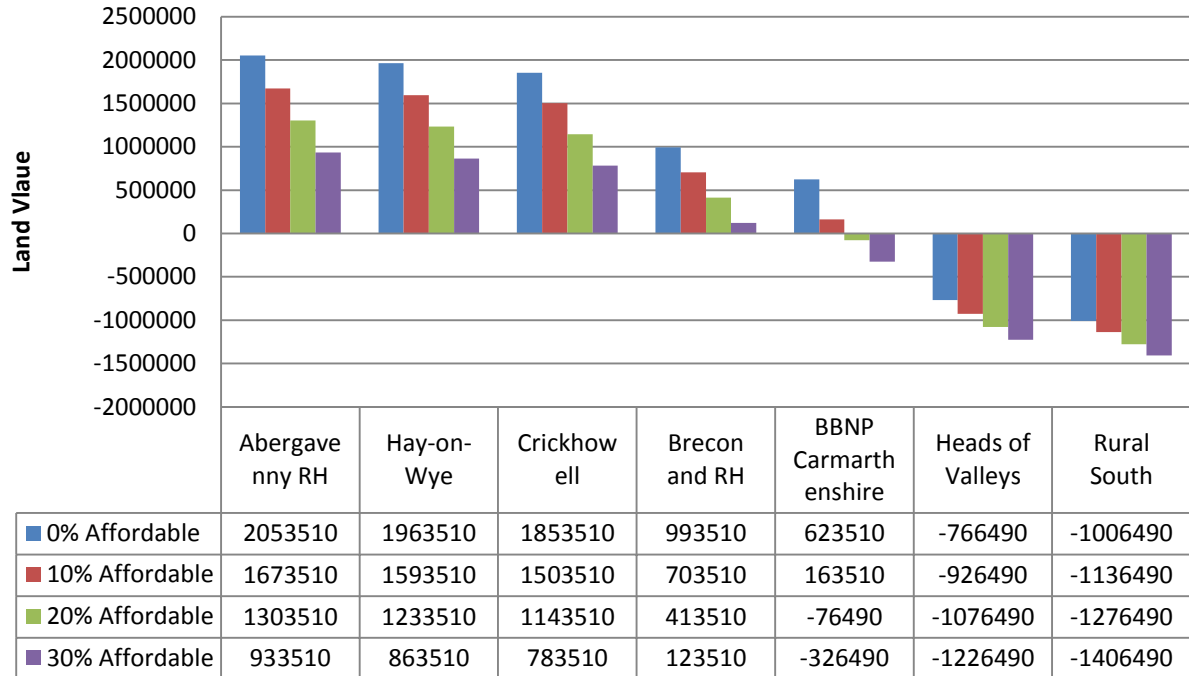
Newport residual values with 40% plus sprinklers



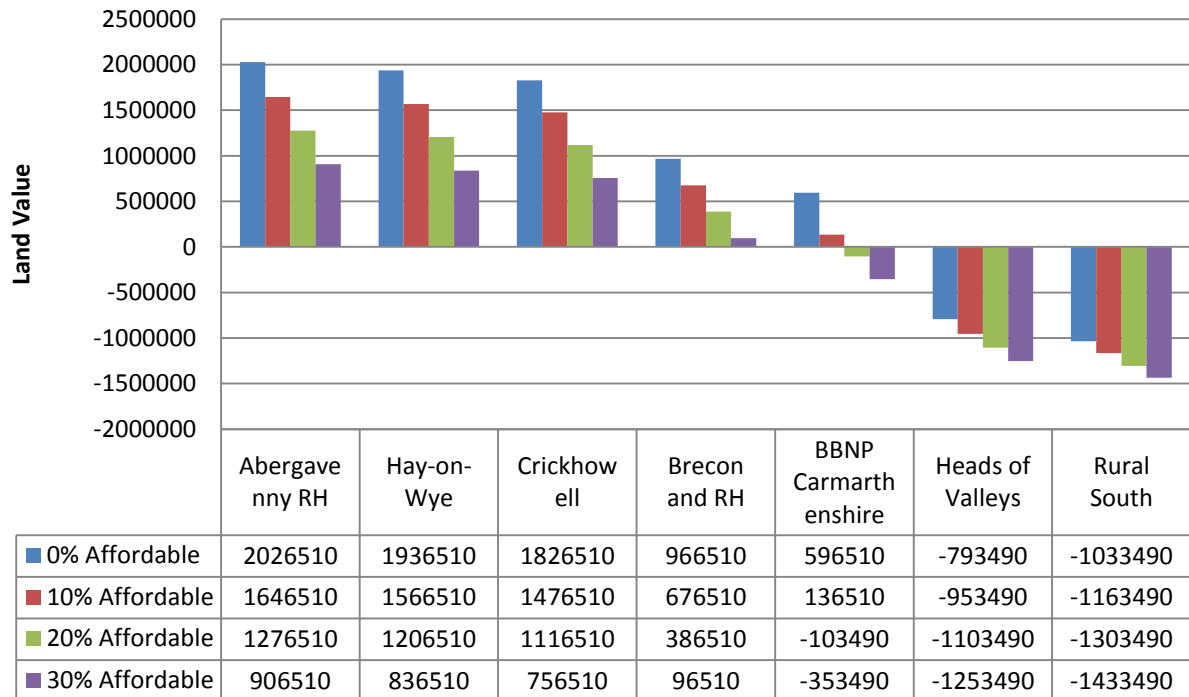
APPENDIX 10

Brecon Beacons National Park

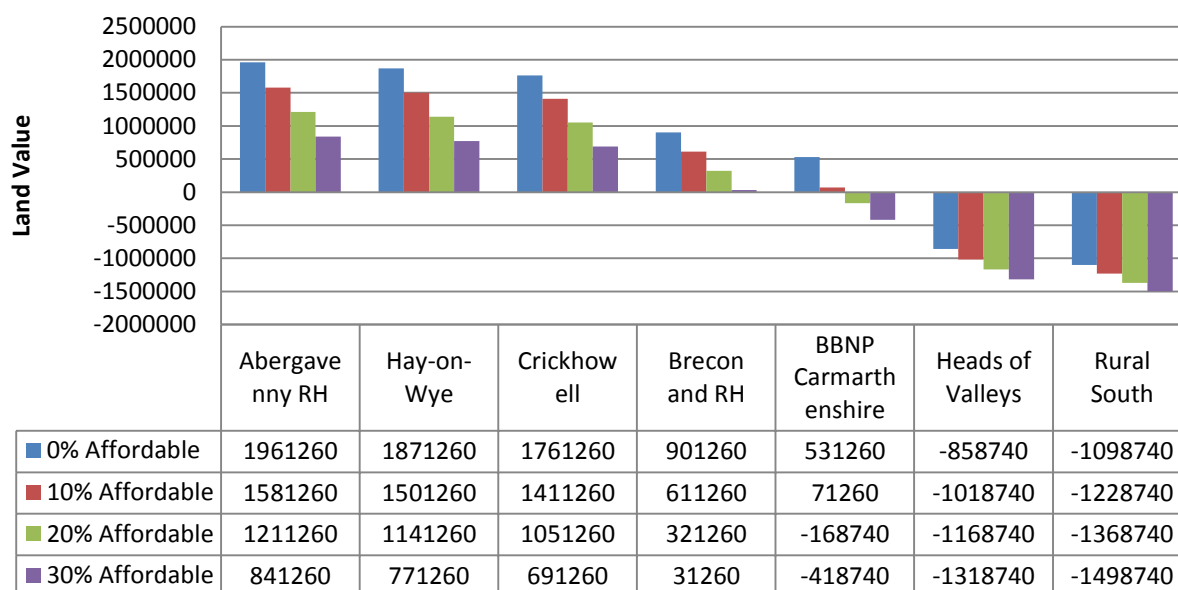
BBNP residual values with 25% improvement



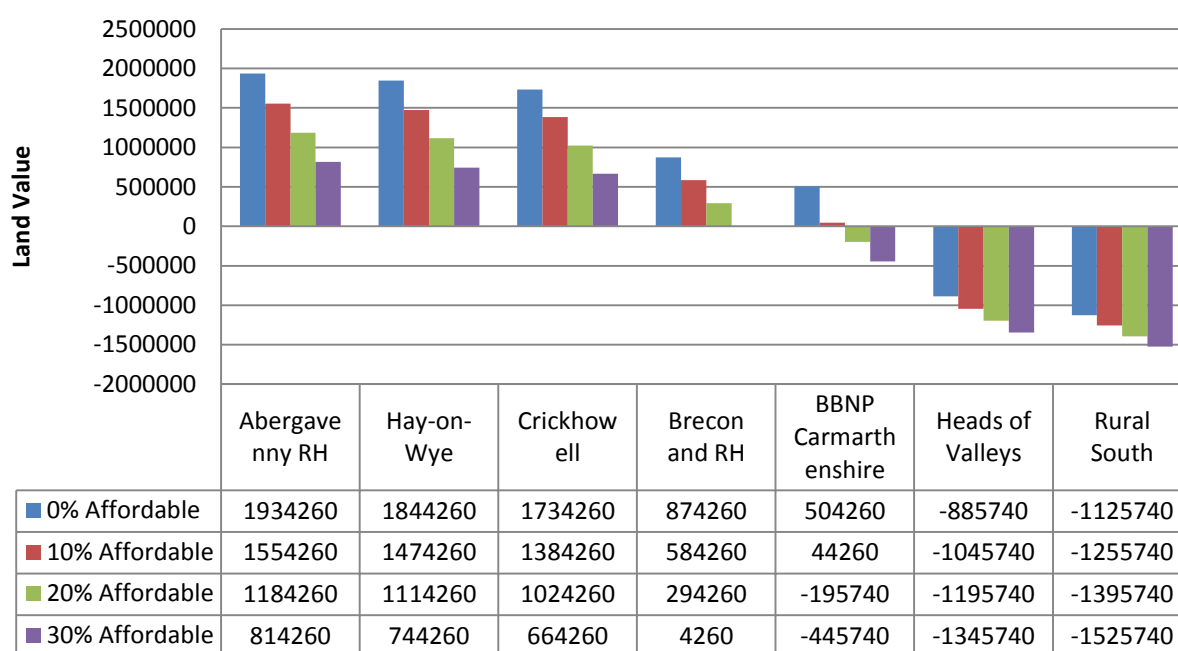
BBNP residual values with 40% improvement



BBNP residual values with 25% plus sprinklers



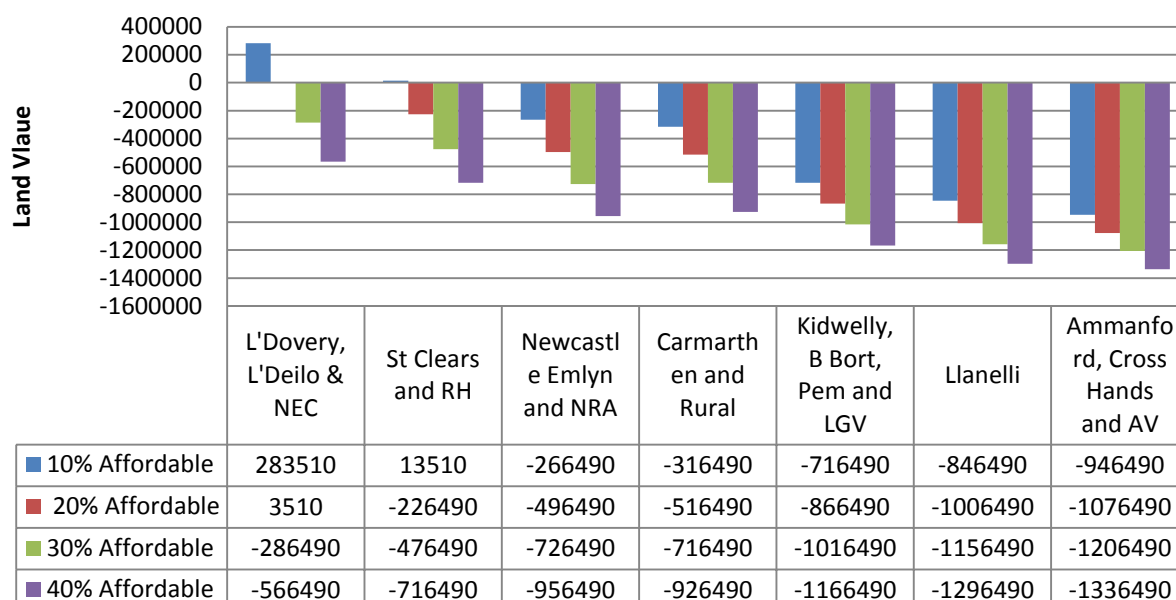
BBNP residual values with 40% plus sprinklers



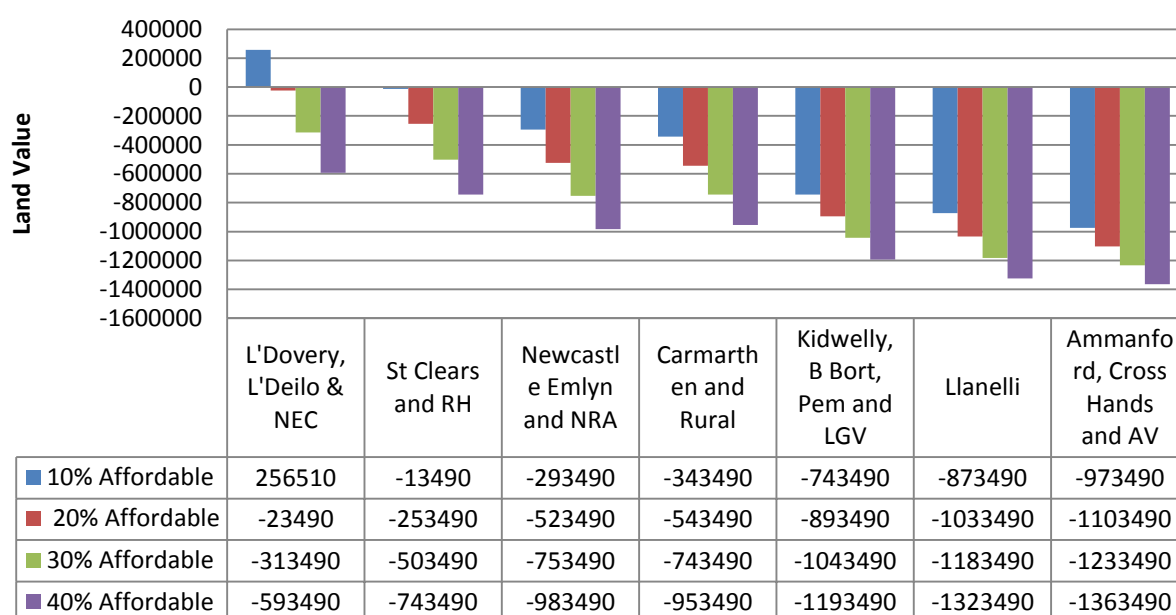
APPENDIX 11

Carmarthenshire

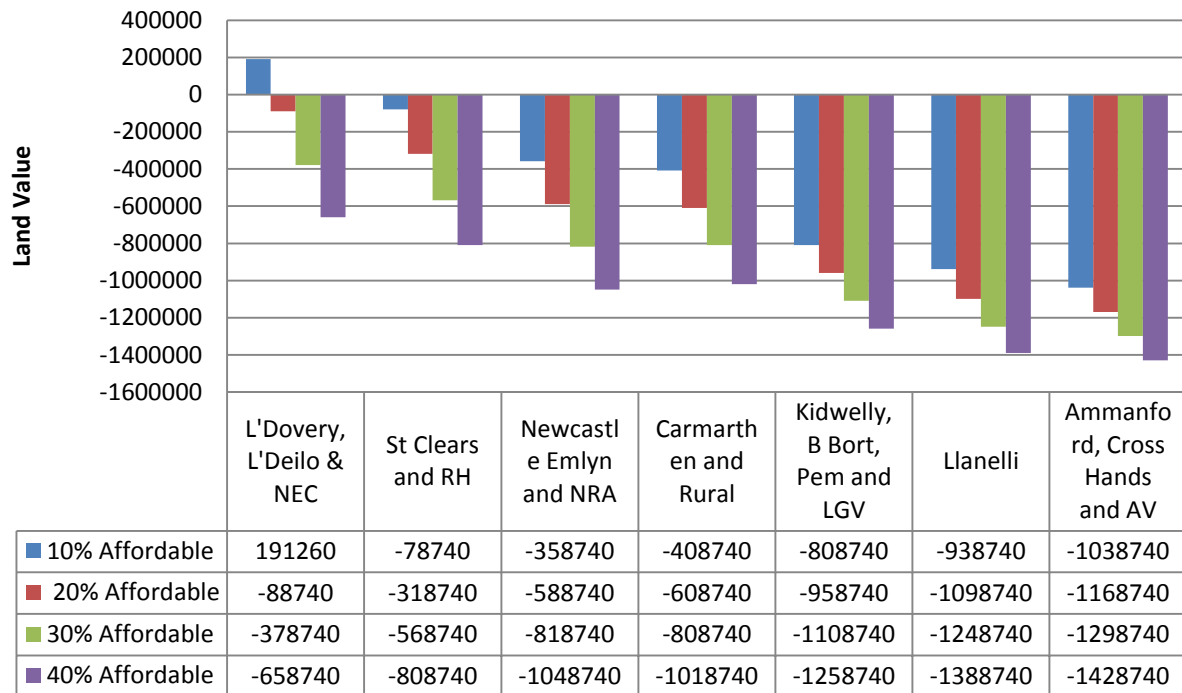
Carmarthenshire residual values with 25% improvement



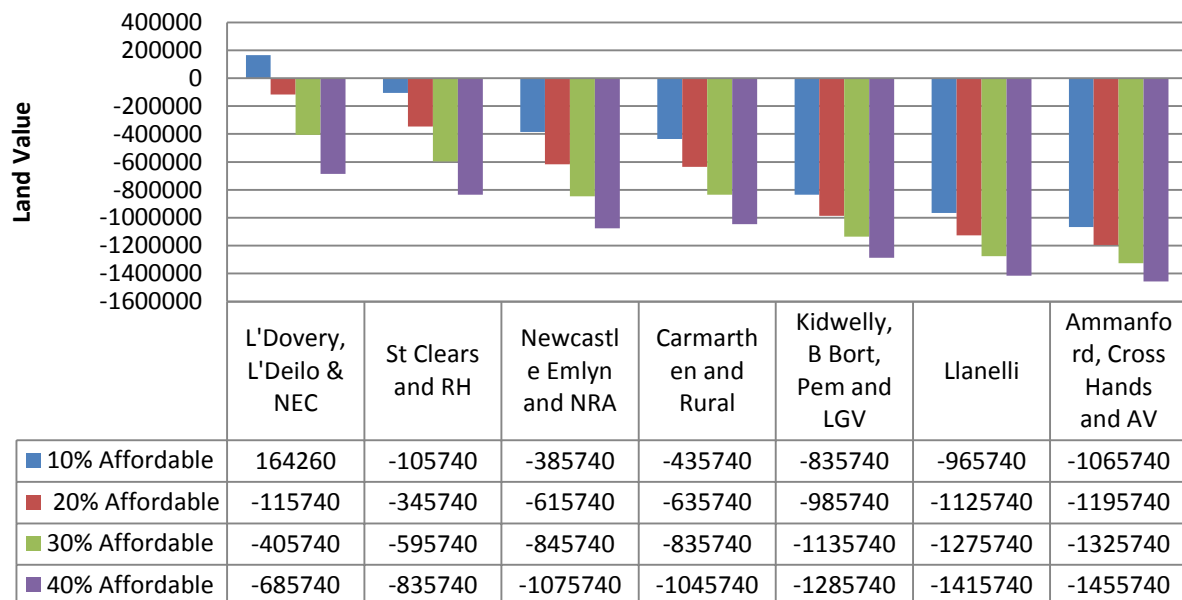
Carmarthenshire residual values with 40% improvement



Carmarthenshire residual values with 25% plus sprinklers

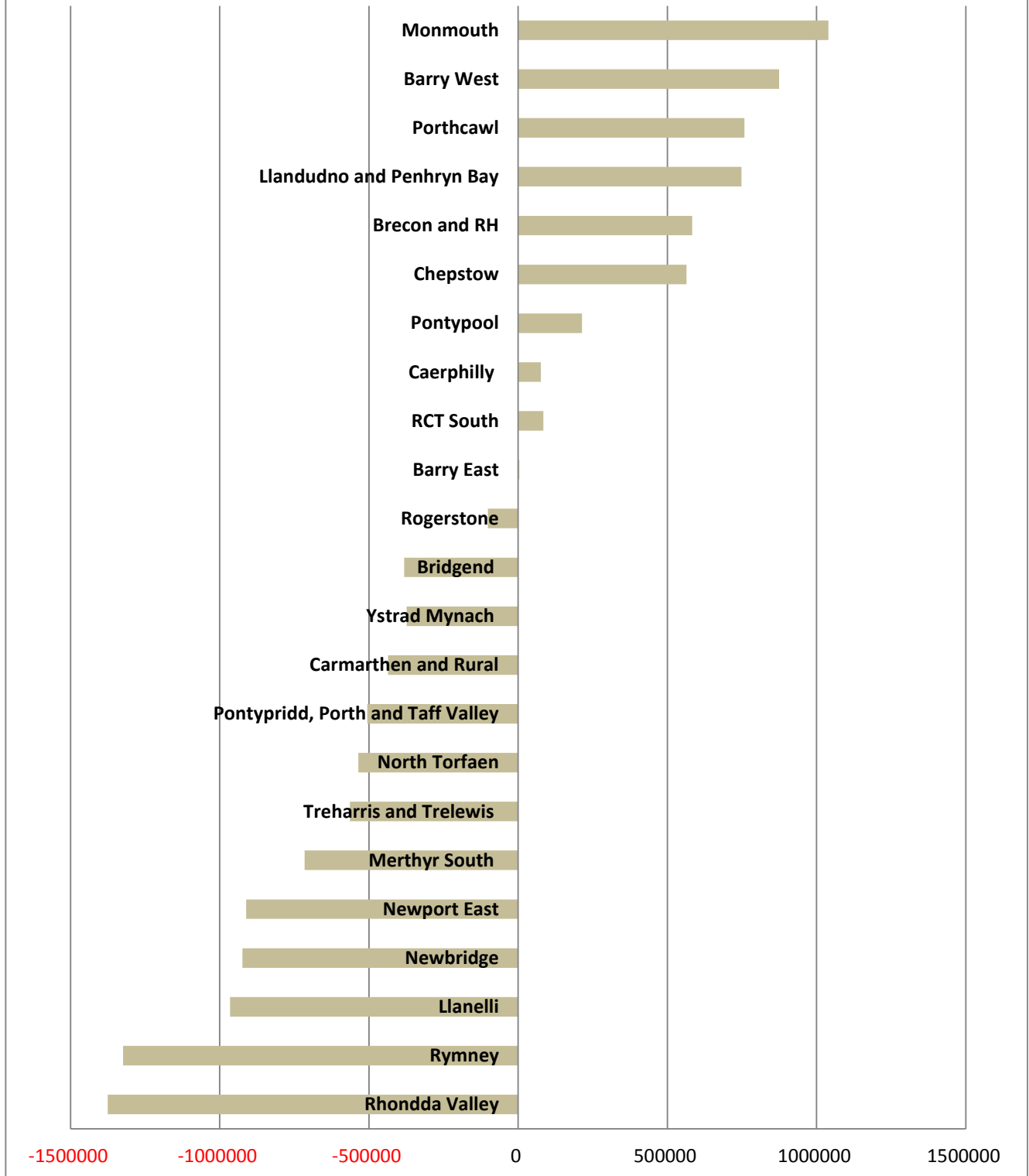


Carmarthenshire residual values with 40% plus sprinklers



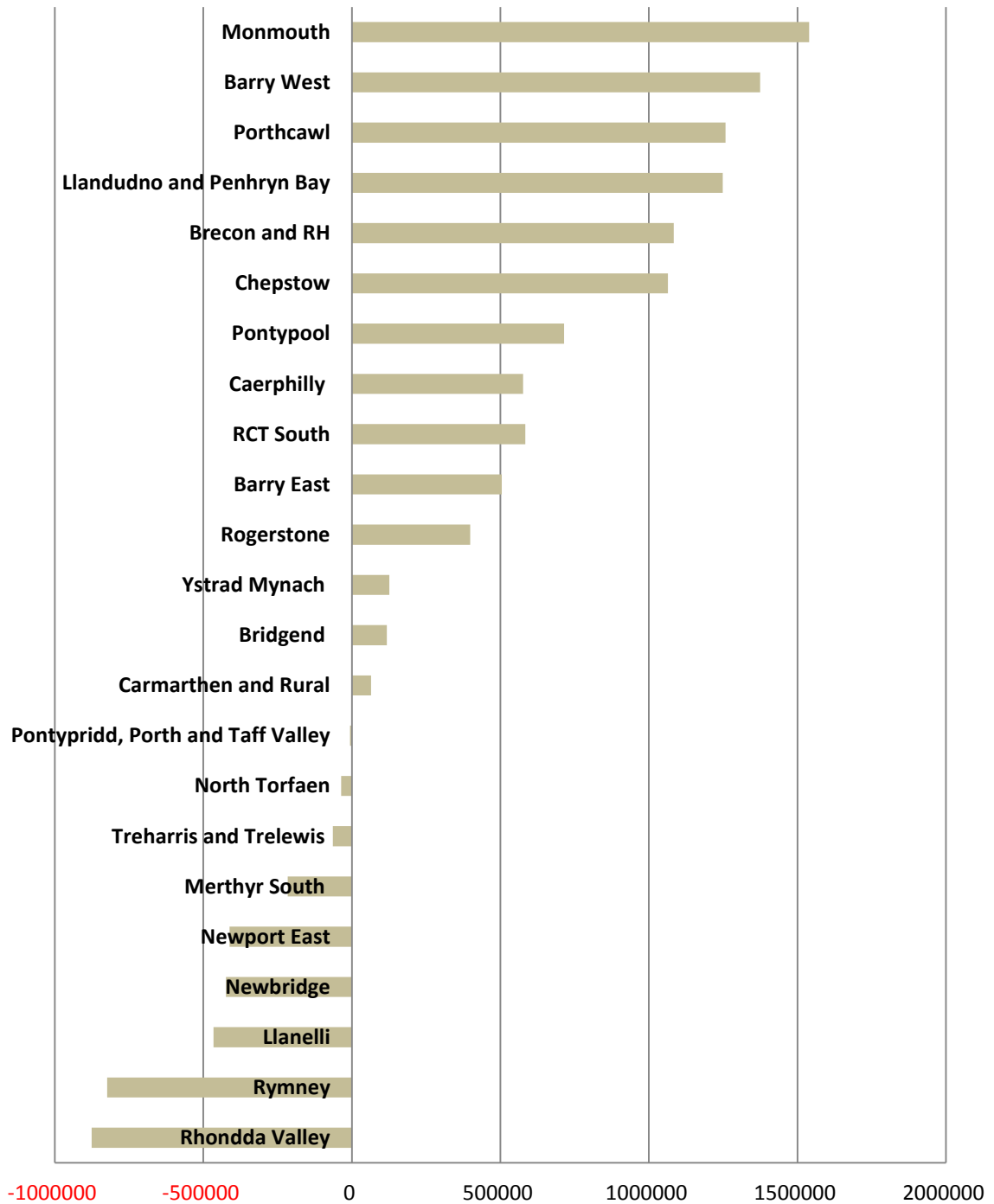
Appendix 12

Land value spread at 10% affordable housing (40% plus sprinklers)



Appendix 13

Land value spread at 10% affordable housing (40% plus sprinklers) - WG Sensitivity Analysis



Appendix 14

Evidence from HBF members on the average cost of remediating sites and addressing abnormal constraints

Developer no.1

- Site 1 - A former steelworks - £263k per acre.
- Site 2 – Industrial site without contamination - £130 per acre.
- Site 3 - Site in Aberdare including raising site - £205k per acre.
- Site 4 - Site in the Vale of Glamorgan - approx £400k per acre.
- **Average £250k per acre**

Developer no.2

Sites are relatively straightforward and some have benefited from prior remediation

- Site 1 - Park Road - £115k per acre
- Site 2 - Bagworth - £134k per acre
- Site 3 - Cleobury Mortimer - £147k per acre
- Site 4 - Yatly - £169k per acre
- Site 5 - Humberstone - £227k per acre
- **Average - £159 per acre**

Developer no.3

- £250k per acre is reasonable

Developer no.4

- Site 1 – Former factory, contaminated site - £439335 per acre
- Site 2 – Sloping site, largely made ground - £192908 per acre
- Site 3 – Sloping greenfield site - £164500 per acre
- **Average - £265581 per acre**

Appendix 15

Evidence to support the estimated cost of remediating sites and addressing abnormal constraints

Report from Arup

Your ref
Our ref
File ref

ARUP

By Post & Email

Planning & Policy Advisor - Wales
House Builders Federation
PO Box 2512
Cardiff
CF23 0GB

4 Pierhead Street

Capital Waterside

Cardiff CF10 4QP

United Kingdom

t +44 29 2047 3727

f +44 29 2047 2277

bob.irvine@arup.com

www.arup.com

For the attention of Richard Price

Dear Sir

Brownfield Sites - Remediation/Reclamation Cost Estimates

Along with Integrale Geotechnique we have been approached by a number of major house builders in South Wales to confirm to you typical costs for the remediation/reclamation works on brownfield sites.

Arup has been involved in the remediation and redevelopment of many of the brownfield sites in South Wales. We have assisted a number of clients e.g. BP, ABP, Welsh Development Agency, in the investigation and development of remediation strategies for approval by the relevant Authorities; subsequently the detailed design, construction supervision and validation of the remediation works. Many of these sites have been or will be developed for housing such as Rhose Point, Waterfront, Barry, Coed D'Arcy, Maesteg Washery and Llanilid.

We have successfully developed remediation proposals to address various types and quantities of contamination using appropriate methods agreed with the regulatory authorities.

Due to this variation in the nature of the contamination methods used the consequent cost varied from site to site. This cost was also affected by the size of the site (smaller the site, the higher the cost per acre), the historic use of the site and the risk posed to the environment. Reclamation/remediation costs for sites where residential development was proposed were generally higher than for other uses, particularly where domestic gardens were proposed.

As such, from our experience, the reclamation/remediation costs, including demolition of disused buildings varied between typically £100K to £250K per acre. In exceptional circumstances with highly contaminated sites the remediation costs could exceed £250K/acre.

The above costs do not include for special measures to be incorporated by the developer to address the specific ground conditions. Based on an average of 15 units per acre, a typical cost per acre for these abnormals would be circa £75K. This covers raft foundations at £2,500 per unit extra over normal strips, £750 per unit for gas barrier in the slab and importation of 600mm thick clean subsoil/topsoil in the gardens.

Therefore, the total cost of remediation/reclamation works and developers abnormals for development of brownfield sites for housing would be circa £175K to £325K per acre.

If you require further clarification or information please contact us. Hopefully the above provides a reasonable guide.

Yours faithfully

A handwritten signature in cursive script that reads "Bob Irvine".

Bob Irvine

Director

Appendix 16

**Evidence to support the estimated cost of remediating sites
and addressing abnormal constraints**

Report from Integrale Geotechnique

Provided separately as a PDF