

EERF

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East of England Rural Forum

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The East of England Rural Forum's Annual Conference 2008

Affordable and Zero Carbon Homes in Rural Areas – can they be delivered?

Results of the Conference Round Table Discussions

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Executive Summary

Priority actions for the EERF

This report documents evidence collected at the EERF's 2008 annual conference on affordable zero carbon rural housing. On the basis of this evidence, together with the results of the EERF/CLA Study completed prior to the conference, the EERF will:

1. *nationally* -use its quarterly meeting with government ministers to raise and request action on issues raised by its joint survey with CLBA, the Hastoe report and by the participants at its annual conference
2. *nationally* - place in front of the Housing Corporation and request, where necessary, action on the evidence it has accumulated
3. *regionally* - ensure, through direct representation as well as through the actions of relevant Forum members that adequate attention is given to its evidence in:
 - the next revision of the Regional Spatial Strategy by EERA
 - the implementation of the Regional and Sub-regional Housing Strategies by the East of England Housing Group
 - awareness raising with the Rural Community Council network, Local Planning Authorities, their planning committees, and parish councils
 - addressing stakeholder resistance from the public, planners, land owners, developers, RSLs, builders, local residents to both zero carbon and affordable rural homes
 - tackling the steep learning curve and to build capacity to fill the skills gaps in the regulatory systems and supply chain to enable zero carbon homes to be delivered effectively in the region by 2016.

The unfolding policy-making context

For several years, the Rural Housing Sub-Group of the EERF has been at the forefront of developing sound evidence on rural affordable housing issues. In 2002 it was one of the first regional partnerships to identify the emerging seriousness of the affordable home deficit in rural areas and commissioned a series of seminars and a regional conference to develop a clear understanding of the issue and the opportunities to develop practical solutions. The resulting report was widely circulated including to senior Government Ministers and officials.

More recently, the EERF recognised that one of the major barriers to delivering affordable homes in rural areas was the lack of suitable land for exception site development coming forward. The EERF, in association with the Country Land and Business Association (CLA), organized a questionnaire survey amongst the CLA's 3885 landowning members in the Eastern Region. The survey identified five key problem issues:

4. provision of land for affordable housing to meet local need.
5. open market homes as part of new affordable developments
6. Inheritance Tax
7. Capital Gains Tax, and
8. inflexibility in planning policy.

The report on the survey made detailed recommendations on how the problems it had identified could be solved, see:

http://www.eerf.org.uk/documents/2008/Affordable%20and%20Zero%20Carbon%20Homes%20in%20Rural%20Areas/Affordable%20Housing%20Report%20120308_1.pdf.

Currently, the EERF is leading regional efforts to develop alternative funding mechanisms for the Rural Housing Enabler (RHE) function, following the ending of central government support. The EERF is supporting the need for continuation of this RHE function in the region by initiating discussions with the Rural Community Council (RCC) network and other regional partners aimed at allowing RHEs to provide an initial and independent advisory service to communities, home providers and local authorities.

The joint EERF/CLA survey was timely. In December 2007, the CLG issued a call for evidence to the review which Matthew Taylor, MP for Truro and St Austell, is conducting for central government on how land use and planning can better support rural business and deliver affordable housing, see <http://www.communities.gov.uk/planningandbuilding/planning/planningpolicyimplementation/reformplanningsystem/matthewtaylorreview/>.

The review will be submitted around July 2008 and will report on:

- the identification and release of appropriate land for local economic development and affordable rural housing provision, working in conjunction with local government, parish councils and land owners.
- investigating the potential for increasing the provision of live/work space within rural communities.
- assessing the local implementation of new planning rules on rural housing following the recommendations of the Affordable Rural Housing Commission.

The EERF has welcomed and supported the Matthew Taylor Review. During Matthew Taylor's visit to the region in March, evidence was provided on:

1. encouraging provision of affordable housing in small rural settlements through community-led use of 'rural exceptions' policy
2. providing accessible and transparent evidence/guidance for use in the planning systems, especially in appeals
3. rural eco-extensions for larger rural settlements through thoughtful rural design and place shaping
4. encouraging the greater use of live/work space to meet both housing and small business needs
5. favouring mixed and diverse business opportunities and employment areas, provided it is low impact and of appropriate scale.

The EERF's evidence and recommendations to Matthew Taylor have subsequently been endorsed by the Regional Housing Advisory Group on behalf of the East of England Regional Assembly (EERA).

Another source of information will be the report and toolkit, commissioned by Hastoe Housing Association, entitled "Ways to finance land and rural housing schemes with little or no Social Housing Grant". The report is due to be published

in late Summer 2008 and will address the issue of the shortfall in the construction programme of over 7,000 rural houses per year. It recognises that the Government wishes to see more houses built and that village communities, employers, local authorities and others need more affordable rural housing. The report acknowledges that more public funding is neither feasible nor available and looks at ways in which alternative funding streams can be accessed. It describes fourteen schemes or funding routes which could yield up to 1900 extra homes in the early years with this figure increasing once the schemes became more widely adopted. These schemes range from planning gain on exceptions sites using cross subsidy (having the greatest potential), community land trusts and other community funding (e.g. trusts), sales of nomination rights, rural housing bonds, funding from local industry and benevolent individuals, tax incentives and land holding options. The report also acknowledges that there are a number of issues to be addressed, not least Planning Guidance and Tax Rules but suggests that, with goodwill, these can be resolved to the public good with little or no public finance - and the positive outcome of more affordable rural homes. Once published it is hoped that Ministers will take on board the proposals and where necessary issue appropriate guidance to achieve the goal of additional affordable rural housing, see www.Hastoe.com

The EERF identified its 2008 conference as another opportunity to gather evidence in support of the earlier information submitted to the Matthew Taylor Review.

The EERF 2008 Conference

It is therefore a logical progression that the East of England Rural Forum used its fifth annual conference to continue to explore solutions to affordability issues but in the context of the emerging urgent policy imperatives of addressing climate change and reducing CO2 emissions.

The issues were considered under the title '***Can affordable and zero carbon homes be delivered in rural areas?***' to focus attention on:

- the practical implications of delivering zero carbon and affordable homes in rural areas in the region, and
- how the potential conflict between delivering zero carbon and affordability can be overcome.

Participants came to the conference from a very wide range of backgrounds. Nearly two thirds were from RSLs, Planning Authorities, other Local Authority functions, and NGOs and voluntary bodies. The other third was made up of land owners, developers, housebuilders, contractors, consultants, suppliers, trade associations, advisory organisations, members of parish councils, the church, charities, and national and regional government agencies. Nearly three quarters came from small to medium sized organizations, with the remainder equally split between micro and large ones.

During the round table discussions, participants were asked to address three questions. What did they see as the main opportunities for, and threat to, delivering:

- affordable homes
- zero carbon homes, and
- affordable zero carbon homes

in the East of England?

Achieving affordable homes

Sizable minorities of the participants saw the *main opportunities* as being **policy-related**:

- **implementation of the exception sites policy**
- **action by the Housing Corporation** to increase funding and grants
- **action by Central Government** to give high priority to achieving targets for affordable rural housing and to make planning policy more pro-active in this area and to offer tax incentives

along with:

- **awareness raising.**

There was more agreement about what are the most significant threats:

- **policy-related** due to policy restrictions and narrow interpretation of the sustainable development agenda which is seen as urban-centric
- **land-related** concerned with lack of available land due to land banking and costs
- **perceptions and attitude-related** due to NIMBYism and parish fears about HA tenants
- **incentives-related** concerned with landowners' lack of incentive to release land and developers' lack of financial incentive due to S106 payments
- **funding-related** concerned with the inadequacies of Housing Corporation funding and its lack of attention to developments on smaller sites

Achieving zero carbon homes

There was strong agreement about the main opportunities here:

- **legislation** up-grading of the Building Regulations and effective implementation of the Code for Sustainable Homes applied to private developers as well as the public sector
- **technology**, particularly advances in technology and mainstreaming what is already available

followed by:

- **energy** especially because of rising energy costs and fuel scarcity
- **education** including knowledge sharing, training and provision of good practice advice and examples

Participants were almost unanimous about the main threat to carbon zero homes:

- **costs** mainly centred around inadequate funding to cover increases over traditional build and lack of financial incentive or pump priming from the Housing Corporation

followed by

- **stakeholder resistance** reflecting fears about widespread resistance from the public, planners, developers, builders, owners, tenants and RSLs
- **lack of knowledge** both within the construction industry and on the part of residents about how to modify their behaviour
- **technology**, its untested nature of technology, longer term problems with its maintenance and dependence on imports to achieve standards

Achieving the twin challenge of affordable, zero carbon, homes

Participants saw the **main opportunities** here as being:

- **political will**, the willingness of government to enforce the Code for Sustainable Homes and of the Housing Corporation to provide the funding necessary, and
- **energy** because of rising costs and lack of security of supply

They were almost unanimous in what they saw as the main threat:

- **costs** centred the perceived additional cost of achieving the Code for the Sustainable Homes against the level of grant available from the Housing Corporation and the lack of financial incentives for the stakeholders involved, including rental constraints on RSLs

followed by

- **attitudes and lifestyles** including educating tenants to use equipment properly, the lack of consumer desire to purchase zero carbon homes or to change their lifestyles, and NIMBYism
- **technology**, its affordability and stage of development, its replicability in the mainstream, and uncertainties about future maintenance and replacement costs
- **knowledge and skills**, how to design and how build a zero carbon home, the lack of technical skills available in the supply chain for installing and maintaining zero carbon homes

Conclusions

The delegates who attended the EERF 2008 annual conference see the main opportunities for achieving affordable housing as revolving around political will – nationally in appropriate actions by central government and Housing Corporation to fund it and put in place appropriate targets and tax incentives, matched at the local level by effective implementation of exception sites policy. But they are concerned that policy interpretations will be too narrow, the funding available will be inadequate, there will be a lack of tax and financial incentives (because of Section 106) so that landowners won't release land, and NIMBYism will block developments.

Delegates agreed strongly that the main opportunity for delivering zero carbon homes was legislation: up-grading the Building Regulations and effective implementation of the code for Sustainable Homes. They also pinned their hopes on technological advances and rising energy prices. They almost unanimously feared that costs, followed by wide ranging stakeholder resistance and lack of

necessary knowledge will prevent them. They are also concerned about untested nature of the technologies involved.

These hopes and fears are combined for the achievement of affordable zero carbon homes. Political will is still seen as the major opportunity, supported by rising energy costs. The perceived additional cost of achieving the Code for Sustainable Homes compared with the level of grant available from the Housing Corporation and lack of incentives for stakeholder along with the rental constraints on RSLs are all seen as threats to progress.

In all cases, delegates also thought that action has to be taken to raise awareness, change attitudes and lifestyles, and improve knowledge and skills.

Recommendations

The EERF needs to consider the weight of accumulated evidence from its joint survey with CLA, the Hastoe report, and the outputs from its 2008 annual conference and decide how this evidence can best be deployed to maximize its impact through:

- its own actions
- its influence on others

at the national, regional, sub-regional, local authority and parish council scales.

Central government

The EERF should use its quarterly meetings with government ministers to raise and request action on the issues (the aspirations, concerns, problems and solutions) identified by its joint survey with CLBA, the Hastoe report, and the outputs from its annual conference, particularly where these are in alignment, e.g.:

- the formulation, interpretation and implementation of planning policy to favour delivery of affordable zero carbon *rural* housing
- recognition and promotion of exception site policies as a valuable mechanism for providing small scale housing developments in rural areas
- encouragement of partnerships (LPAs, landowners and local communities) to find and deliver local solutions to local needs
- removal of the prohibition of cross-subsidy of affordable housing from the profits of open market houses built in the same development
- ensuring that affordable homes are retained over time for meeting local needs.

Housing Corporation (Homes & Communities Agency when merged with English Partnerships)

The EERF should place in front of the HC and, where necessary, request action on the issues identified in its accumulated evidence, e.g:

- the almost unanimously perceived additional cost of achieving the Code for Sustainable Homes against the level of grant available from the HC
- the lack of financial incentives for the range of stakeholders involved, including the rental constraints on RSLs, for delivering zero carbon homes
- the perceived need for increased funding and grants to achieve affordable *and* zero carbon housing, particularly pump priming and/or incentives for installing specific (renewables) technologies

- concern about the 'untried and untested' nature of these technologies, especially uncertainties about long term performance, futures maintenance and replacement costs.

Region, sub-region, LPAs and parish councils

The EERF should, through direct representation as well as through the actions of the relevant members of the Forum and its Housing Sub-group, ensure that:

- adequate attention is given to its accumulated evidence by EERA in the next revision to the Regional Spatial Strategy
- adequate attention is also given to the evidence in the implementation of the Regional and Sub-regional Housing Strategies by the East of England Housing Group
- awareness is raised within the Rural Community Council network, Local Planning Authorities, their planning committees, and parish councils about the issues involved in the effective delivery of affordable zero carbon rural homes
- steps are taken to:
 - address stakeholder resistance from the public, planners, land owners, developers, RSLs, builders, local residents and tenants to both zero carbon and affordable rural homes
 - tackle the steep learning curve and build capacity to fill the skills gaps in the regulatory system and in the supply chain to enable zero carbon homes to be delivered effectively in the region by 2016.

Introduction

The East of England Rural Forum held its fifth annual conference on the theme of '**Can affordable and zero carbon homes be delivered in rural areas?**' on 5 March 2008 at the Holiday Inn in Peterborough. The conference sought to demonstrate:

- the practical implications of delivering zero carbon and affordable homes in rural areas in the region, and
- how the potential conflict between delivering zero carbon and affordability can be overcome.

The conference also covered the funding of zero carbon and affordable homes in rural areas, since RSLs already have to achieve Code for Sustainable Homes Level 3 in order to attract funding from the Housing Corporation, and the availability of land for exception site developments.

The conference sought to further the debate, and lessen the uncertainty, surrounding how to achieve zero carbon homes in the region. This issue is now a focus for action by the Regional Housing and Sustainable Communities Panel and by other regional and sub-regional housing delivery partnerships. The Panel is concerned not only about delivering housing numbers but how such homes can be delivered sustainably – given that much of the housing growth proposed in the current Regional Strategy will be delivered post 2016.

Structure of the event

The conference was in three parts (see programme in Appendix 1):

1. presentations from a range of stakeholders involved in commissioning, delivering and regulating affordable and zero carbon housing, available on the EERF's website (www.eerf.org.uk)
2. an exhibition and networking session (over lunch), and
3. a round table discussion session focused on the major opportunities for and threats to achieving affordable and zero carbon homes in rural areas.

The participants

151 participants attended the conference from a very wide range of backgrounds. During the afternoon round table discussions, 78 of these provided information about the organization on whose behalf they attended. Nearly two thirds of these came from RSLs, Planning Authorities, other Local Authority functions, and NGOs and voluntary bodies. The other third was made up of land owners, developers, housebuilders, contractors, consultants, suppliers, trade associations, advisory organizations, members of parish councils, the church, charities, and national and regional government agencies. Nearly 7 out of 10 participants came from small (11-249 staff) to medium sized (250-499) organizations, with the remainder equally split between micro (1-10) and large (.500).

During the round table discussions, participants were asked to address three questions. What did they see as the main opportunities for, and threat to, delivering:

- affordable homes
- zero carbon homes, and
- affordable zero carbon homes

in the East of England?

Their responses are summarized below and given in more detail in the tables which follow.

Achieving affordable rural homes

Opportunities

Those who attended the conference identified 41 opportunities for achieving affordable rural homes, see Table 1. But few of these were supported by many of the participants, taken here to be >10%. Above this limit, participants identified opportunities as being driven by:

- **implementation of the exception sites policy** (38%), including relaxation to allow the sale of open market homes to subsidise affordable ones
- **awareness raising** (18%) to recognize the need for affordable rural homes
- **action by the Housing Corporation** (17%) to increase funding and grants
- **action by Central Government** (17%) to give high priority to achieving targets for affordable rural housing and to make planning policy more proactive in this area and to offer tax incentives
- **local availability of land and sites** (13%) reflecting a view that there is more space available in the countryside than in urban areas
- **community engagement** (10%) to identify local needs and build support for schemes, and
- **partnership working** (10%) to deliver established need between the Planning Authority, the Parish Council, RSLs, landowners and other stakeholders

Below the 10% cut of point lies a long list of opportunities, typically cited by only small numbers of participants.

Threats

Those who attended the conference identified 40 threats to achieving affordable rural homes, see Table 2. But there was more (twice as much) agreement about what are the most significant threats:

- **policy-related** (66%) due to policy restrictions and narrow interpretation of the sustainable development agenda which is seen as urban-centric
- **land-related** (65%) concerned with lack of available land due to land banking and costs
- **perceptions and attitude-related** (49%) due to NIMBYism and parish fears about HA tenants

- ***incentives-related*** (28%) concerned with landowners' lack of incentive to release land and developers' lack of financial incentive due to S106 payments
- ***funding-related*** (28%) concerned with the inadequacies of Housing Corporation funding and its lack of attention to developments on smaller sites.

These threats are mirror opposites of the opportunities cited above and indicate what participants fear will happen if these opportunities are not effectively pursued. Beyond these commonly shared fears lies a long list of threats, typically cited by only a small number of participants.

Achieving zero carbon rural homes

Opportunities

Those who attended the conference identified 47 opportunities for achieving zero carbon rural homes, see Table 3. But relatively few of these were mentioned by many of the participants, i.e. >10%. Above this limit, participants identified opportunities as being driven by:

- ***legislation*** (59%), covering up-grading of the Building Regulations and effective implementation of the Code for Sustainable Homes applied to private developers as well as the public sector
- ***technology*** (32%), particularly advances in technology and mainstreaming what is already available
- ***energy*** (24%), especially by rising energy costs and fuel scarcity
- ***education*** (19%) including knowledge sharing, training and provision of good practice advice and examples
- ***funding*** (17%) through incentives and grants for installing specific (renewables) technologies
- ***awareness raising*** (15%) about the environmental agenda, and
- ***climate change*** (10%) in response to increasing pressures and realities

As these priorities indicate, there are some similarities and differences between the opportunities cited for afford and zero carbon rural homes. Both are seen as policy/legislation driven issues for which there is (as yet) no market demand. What is presented as differentiating zero carbon from affordable homes is the opportunity afforded by (developments in) technology. Once again, below the 10% cut of point lies a long list of opportunities, typically cited by only small numbers of participants.

Threats

Those who attended the conference identified 46 threats to achieving zero carbon rural homes, see Table 4. And they were almost unanimous about what they see as the most significant of these:

- **costs**(92%) covering a very wide range of issues but mainly centred around inadequate funding to cover increases over traditional build and lack of financial incentive or primp priming from the Housing Corporation
- **stakeholder resistance** (44%) reflecting fears about widespread resistance from the public, planners, developers, builders, owners, tenants and RSLs
- **lack of knowledge** (32%) including within the construction industry and on the part of residents about how to modify their behaviour
- **technology** (23%) concerned with the untested nature of technology, longer term problems with its maintenance (in new Climate Change conditions) and dependence on imports to achieve standards
- **strategy** (11%) reflecting fears about the short time scale and steep learning curve if zero carbon homes are to be delivered effectively by 2016

Achieving affordable zero carbon rural homes

Opportunities

Those who attended the conference identified 43 opportunities for achieving affordable zero carbon rural homes, see Table 5. But relatively few of these were mentioned by many of the participants, i.e. >10%. Above this limit, participants identified opportunities as being driven by:

- **political will** (59%) mainly on the part of the government to enforce the Code for Sustainable Homes and the Housing Corporation to provide the funding necessary
- **energy** (22%) because of rising costs and lack of security of supply plus linking old and new developments to achieve economies of scale
- **technology** (13%) due to advances in technology and reducing costs
- **public awareness** (11%) because of growing desire to be environmentally friendly or the need to be react to climate change
- **landowners** (11%) through negotiations about free or gifted land and cross-subsidies

Below the 10% cut of point, there once again lies a long list of opportunities, typically cited by only small numbers of participants.

Threats

Those who attended the conference identified 41 threats to achieving affordable zero carbon rural homes, see Table 6. And, once again, they were almost unanimous about what they see as the most significant of these:

- **costs** (92%) covering a very wide range of issues but mainly centred the perceived additional cost of achieving the Code for the Sustainable Homes against the level of grant available from the Housing Corporation and the lack

of financial incentives for the stakeholders involved, including rental constraints on RSLs

- **attitudes and lifestyles** (32%) including educating tenants to use equipment properly, the lack of consumer desire to purchase zero carbon homes or to change their lifestyles, and NIMBYism
- **technology** (23%) the affordability and stage of development of the technologies required, its replicability in the mainstream, and uncertainties about future maintenance and replacement costs
- **knowledge and skills** (22%) including how to design and how build a zero carbon home, its benefits, the lack of technical skills available in the supply chain for installing and maintaining zero carbon homes
- **lack of political will** (18%) from both central and local government.

Table 1. Opportunities for achieving affordable homes

Opportunity cited	Raw scores n=78		%
<i>Policy driven</i>			
(Use of) exception sites (policy) (solely for affordable housing)	16	30	38
Rural exception survey establishing housing needs	2		
Alter/relax exception site policy (to allow cross-subsidy/open market homes (1 for 3?) to subsidise affordable units and replace need for HC grants)	10		
Allow a mix of uses on exception sites, i.e. small workshop units to allow rural businesses to expand to reduce CO2	1		
Rural exception policy – effect on value to landowners	1		
<i>Awareness driven</i>			
Recognition of (the level of) community housing needs/benefits/public awareness	14		18
<i>Housing Corporation driven</i>			
Access to increased (Housing Corporation) funding availability/funding opportunities/ grant availability/partnership funding	13		18
<i>Central government driven</i>			
Central government (housing) targets/high political priority	8	13	17
Central government support (acceptable to existing communities)	2		
Planning shake up/policy for pro-active planning changes, subject to Central Government	2		
Tax incentives	1		
<i>Land driven</i>			
Local availability of land/sites	10		13
<i>Community driven</i>			
Community consultation, involvement, engagement/local community support/local identification of needs/local appetite for such a scheme	8		10
<i>Partnership driven</i>			
Co-operation/partnership/ willingness to work together to deliver established need/closer liaison/dialogue between housing, planning, PCs RSLs, LPA, RHE, landowners etc	8		10
Demand	7		
Planning support from LA/ relaxing, pro-active planning policy/Local Development Framework	5		
Parish plans and involvement/LA developing positive working mechanism with parish councils	5		
Limit occupancy to local people/local letting penalties/land used only for local people/nomination of rights for family members	5		
Willingness 'to do' by landowners/landowner involvement/large landowners with altruistic leanings (where no better value exists)	5		
General situation so bad that general agreement that rural	5		

development required/public awareness (of acuteness of problem)	
Rural enablers to provide independence in the process of delivery/educating population on need for local affordable housing	5
Planning policy (national, regional, local)/primary legislation as government drivers	4
Political will/backing	3
Housing market forces (less NIMBYism because all sectors cannot afford to buy on open market)/open market now so unaffordable	3
(Financial) rewards (to LA) for delivery	3
Shared ownership, mortgages, arrangements	3
Convince people of Section 106 being planning condition/S106 non-affordable housing contributions (education, etc)	2
Building low energy, low carbon for low income families/delivering cheaper energy bills for residents	2
Keep communities viable/sustaining communities for young people	2
Revision of local authority thresholds (for planning obligations)	2
LA-owned land/county-owned underused farms etc (but not at market value!)	2
Low economy	1
Quality of life (children to live and work locally)	1
Opens door to owned housing	1
Technological improvements	1
Affordability issues affecting people beyond traditional definition	1
Ensuring affordability in perpetuity	1
Capacity of renewable energy generation	1
Community Land Trusts	1
General awareness of need for balanced community	1
Advantages to low paid workers	1

Table 2. Threats to achieving affordable homes

Threat cited	Raw scores n=78		%
<i>Policy-related</i>			
LA Planning system (process, regime), policy (restrictions) (interpretation)/LDF process/green belt	28	52	66
Impact of (short sighted) (narrow interpretation of) sustainable agenda/policy/targets/anti-rural, urban-centric policy focus/green agenda focusing on CO2 emissions	15		
Factoring in sustainable communities	1		
Exception site policy (not sufficient to deliver) (lack of understanding by parishes and landowners)/difficulty of identifying exception sites that meet planners approval	3		
RSS policy cascades	1		
Legislation not keeping up	1		
Brownfield sites (policy)	3		
<i>Land-related</i>			
(Lack of) land availability/supply/release/land banking	38	51	65
Land costs	13		
<i>Perceptions/attitude-related</i>			
Nimbyism/local opposition/other residents' perception of affordable homes/fears of parishes about HA tenants/community concerns/concreting over the countryside	36	38	49
Ability of parishes to veto exception site applications without good grounds	1		
Lack of co-operation	1		
<i>Incentives-related</i>			
Landowner taxation/lack of landowner incentive/lack of return on investment/landowners' 'hope' value (especially on exception sites)	10	22	28
Greedy landowners	1		
Agents' fees	1		
Loopholes that allow developers to build houses in small numbers to avoid affordable housing targets/attitude of developers	2		
Developers' (want to make) profit (margins)/lack of financial incentive for developers/S106 payments	7		
Economic viability of development	1		

Funding-related			
Lack of finance/funding sources	9	22	28
(Annual) (reduction in)(lack of realistic) grant (meaning RSL will have to subsidise more leading to reduction in RSL programme)/funding from Housing Corporation/public sector funding/working a scheme up at a grant rate that is acceptable	11		
(Not enough attention by Housing Corporation on) (stifled development on) smaller settlements/sites	2		
(Lack of) infrastructure (costs): water, transport/community infrastructure levy	7		
Increase in standards/expectations of (higher design) quality	4		
Market forces (house prices)/downturn (effect on S106)	4		
Market forces (house prices)/downturn (effect on S106)	4		
(Government needs to change) tax rules	3		
(Materials) (build) costs (in relation to rent increases)	3		
Second home ownership (villages)	3		
Lack of (funding for) rural housing enablers	2		
Housing survey knowledge/lack of information	2		
Sales to local people	1		
Controlling lettings	1		
Value of village edge sites	1		
Disintegration (rather than) integration of society	1		
Right to acquire lessens stock	1		
Services, e.g. hospitals	1		
Inertia to change	1		
Immediate local requirements	1		
Population – too many houses required	1		

Table 3. Opportunities for zero carbon homes

Opportunity cited	Raw scores n=78	%
<i>Legislation driven</i>		
Legislation/law driven changes/legislation to encourage sustainable low carbon design/Government agenda (priority) (pressure)	10	46 59
(Upgrading of) Building Regulations (trajectory)	9	
Code for Sustainable Homes: clear detailed framework (for zero carbon by 2016)/enforcement of levels 5 and 6 by certain date/definitions and targets in the public domain	7	
(Government and Housing Corporation) (increasing) promotion of agenda/national backing (Stern Report)	6	
Introduce CSH for private developers (same as public sector)/developers being pushed to advance into this area/developers' one-upmanship	6	
Planning policy to encourage adoption of renewable energy sources/receptive LPA	3	
<i>Technology-driven</i>		
Mainstreaming technology already exists (but at a cost)/availability of energy saving systems/simple construction improvements required for zero carbon homes	6	25 32
Technological advances (improvements to bring costs down)/new methods for implementation	10	
Biofuels?/biomass for heating	2	
Design innovations/good architecture and design sympathetic to the environment	2	
Emphasis on sustainable (timber) construction	2	
Smart metering	1	
Heat pumps and renewable electricity generation	1	
Using Passivhaus designs	1	
<i>Fuel-driven</i>		
(Incentives through) rising fuel costs	12	19 24
Fuel scarcity/availability/insecurity/future energy security/shortages	6	
Fuel poverty	1	
<i>Education-driven</i>		
Education/sharing knowledge about new systems/training	9	15 19
Plenty of examples of good practice (advice) to inspect (from Europe)/great examples in the RSL sector/more demonstration projects/flagship schemes	6	
		17

Funding-driven			
Government funding and incentives/grants (to support future energy availability)	6	13	
Funding for installation of equipment/sustainable/renewables technologies (available at reduced rates)	5		
Grants from companies (like Ice Energy)	2		
Awareness-driven			
Growing awareness of environmental agenda/public perception/acceptance by public of need/community interest	11	12	15
The rural 'greenies' population	1		
Climate change-driven			
Increasing climate change agenda/pressures/(tackling) realities of climate change	5	8	10
Local ownership of climate change/increasing public awareness of issues	3		
Energy savings	1	6	
Financial/cost savings	2		
Reduced environmental impact/desire to be eco-friendly	2		
Systems with short pay back value	1		
Linking new buildings with existing stock to provide energy for whole community (via ESCO)	1	3	
Use of local building materials	2		
Space in countryside for larger, more effective, wind turbines	2		
Simplicity of planning	1		
Suitable developments for the technology to work	1		
Government directive to tackle climate change	1		
Time to do now before we have to	1		
Capacity to use renewables in rural areas	1		
Job creation/environmental businesses	1		
Incentives for developers	1		
Exception sites/Section 106 free serviced land	1		
LA owned land/brownfield sites	1		
Mobility	1		
Urgent need (to build not talk)	1		
Commission local RCC to support intention	1		
Parish plans	1		
Rural housing enablers	1		
THERE AREN'T ANY	1		

Table 4. Threats zero carbon rural homes

Threat cited	Raw scores n=78		%
<i>Costs-related</i>			
Money/cost (increases over traditional building) (but this is diminishing) (may be prohibitive) (up front) (capital investment)/lack of clarity over costs (in particular additional cost of getting from scale 4 to 5) (margins for achieving CSH level 6 are very small)	37	72	92
Lack of financial incentive/limited (available) finance/funding/obtaining added funds required/affordability and (sufficient) grants required/pump priming/lack of commitment from Housing Corporation to fund more expensive schemes	12		
Need (high) volume supply (critical mass) to bring costs down	4		
Cost of installation/implementation (perceived and actual)	4		
Cost of (renewable energy) technologies	3		
Running costs/can people afford to pay	2		
Cost of pay back period	2		
Rental considerations/constraints for HAs	2		
(Cost in context of other demands on) residual land values	2		
Decreasing house prices (crashing)	2		
Increased house prices passed on to purchasers	1		
Decreasing energy costs	1		
<i>Stakeholder resistance-related</i>			
Public resistance/perception/acceptance of innovative design/new technology/zero carbon standards/life style changes/disbelief 'It's all tax scam'	15	34	44
Developers' reluctance/no enough mainstream developers/lack of commitment in (no restrictions on) private sector/lack of will/negative attitudes	7		
Planners' resistance/planners' understanding and desire for change/(local) planning restrictions	6		
Builders' (building industry) resistance to meet top standards	3		
Owner and tenant resistance to the unconventional (non-traditional)	2		
Lack of RSL buy-in	1		
<i>Knowledge-related</i>			
Lack of (local) experience/knowledge/skills/resources within construction industry	10	25	32
Educating residents/lack of knowledge of householders to modify behaviour in zero carbon homes/lack of knowledge by public of benefits	10		
Lack of reliable sources of information/Not knowing where to ask	2		
Knowledge of smaller developers	1		
Availability of training	1		
Lack of understanding in parish councils	1		

Technology-related				
(Lack of) (tried and tested) (affordable)technology (in its infancy)/unproven technology	8	18	23	
Technical problems/(longer term) maintenance of new technologies	4			
Lack of reliable sources of supply/resources/importing products and materials from Germany/renewable energy sources	4			
Lack of proof of technology in heatwave or cold winter/faith in system	2			
Strategy-related				
Time scale for (compulsory) delivery/ Time scale – steep learning curve/time scale too slow	4	9	11	
Risks/uncertainty – lack of reassurance and long term commitment	3			
Lack of strategy for delivery	2			
Lack of encouragement from government/political apathy/lack of guidance from centre	5	4		
Availability of sustainable sites/site constraints/confines of rural sites/small schemes won't benefit	5			
Availability of renewable energy supply/energy requirements	2			
Integrating renewables into the national grid	1			
Transport services and infrastructure	1			
Lack of regulatory clarity/no definition of what a zero carbon home is/delays in updating legislation requiring minimum standards	3			4
Enforcement of Building Regulations	1			
Zero carbon issue not addressed from the beginning of the development process/failure to engage with energy hierarchy by designers/not accounting for embodied energy	3			4
Difficulty of achieving airtightness	1			
Difficult to achieve in existing housing/some homes difficult to convert/cost of upgrades	3			
Competing demands for grey, green and community infrastructure/not on public priority list so lack of urgency	2			
Visual impact	1			
Lack of imagination	1			
Eco-bling pre-occupation	1			
“Not currently possible I understand”	1			

Table 5. Opportunities for affordable zero carbon rural homes

Opportunity cited	Raw scores n=78		%
<i>Political will-related</i>			
Political will/(Housing Corporation funding to help meet) government commitment to targets to provide more housing/national backing/high political priority/cost subsidies to provide carrot approach/funds to incorporate renewables technologies	19	33	59
Enforcement/imposition of Code for Sustainable Homes (necessary for funding) by 2016	6		
Legislation (to encourage developments with exemplars/law to drive wider availability of affordable 'kit')	4		
Willingness to deliver from all LAs and RSLs (CSH Level 6 by 2016)	3		
Ensure developers and private companies achieve CSH Level 3+	1		
<i>Energy-related</i>			
Rising energy costs	6	17	22
Linking new to old developments to take advantage of larger renewables initiatives/economies of scale	5		
(Lack of) security of supply	4		
Returning power to the grid	1		
National security	1		
<i>Technology-related</i>			
Technological advancement/reducing costs	5	10	13
Technology available now	1		
Renewables development	1		
Technical benefits for all housing	1		
Off-site construction to reduce costs of on-site build programme leading to reduced interest on borrowing for scheme	1		
Improved cost effective use of materials	1		
<i>Public awareness-related</i>			
Public more environmentally friendly/tenants or buyers more aware/public perception of 'zero carbon home'/young people willing to take the risk of this type of life style/growing awareness of need to react to climate change/engagement with community/community satisfaction with achievements and meeting needs	9	11	
<i>Landowner-related</i>			
Work with landowners (on leasehold options) to negotiate land as gift so money can be re-invested in carbon efficiency/obtaining free or discounted land/cheap land	3	9	11
Cross-subsidies (on schemes) (from open market sale)	2		
Additional avenues to fund new build RSL activity (Second Homes Tax)	1		
Review of inheritance tax and capital gains to encourage investment	1		
Land owner involvement in land provision and future income from	1		

energy supply (wind, biomass)			
LA co-operation and land	1		
Lower total household costs/lower cost of living for people that need it	2	5	
Financial saving with will result from the use of low carbon technologies	1		
Energy savings	1		
Pay off over time	1		
Partnering/joint working/willingness of organisations to participate	4	5	
Parish and district councils receptive to idea of co-operative schemes	1		
Look for best practice from Europe/enhancing what other countries are doings/European and international pressure and sponsorship	4		
Opportunities for business	1	3	
Environmental benefits	1		
Community benefits – community power systems helping existing communities and assisting issues of fuel poverty	1		
Involving target tenant groups and residents in education	2		
Educating developers and landowners	1	3	
Incentives for developers and housebuilders	3		
VERY DIFFICULT (TO ACHIEVE AT PRESENT) (IF NOT IMPOSSIBLE)	2	3	
THERE AREN'T ANY	1		
Urgent need (to do) (for housing that does not cost more than conventional)	2		
Sufficient and significant resources available	1		
Need to promote sustained small sustainable eco-villages	1		
Developers' willingness to push the boundaries and accepted risks of this approach	1		
Rural affordable housing agenda (Matthew Taylor enquiry)	1		
Enthusiasm and willingness to experiment	1		
Mixed use	1		

Table 6. Threats affordable zero carbon rural homes

Threat cited	Raw scores n=78	%
Costs-related		
(Perception of) costs (of uplift) (of zero carbon) (of development) (prohibitive if grants unavailable) (insufficient subsidy) (8% more than conventional)/extra capital costs/cost of achieving high level of sustainability/grant levels from Housing Corporation don't reflect increased costs/Housing Corporation expecting more to be delivered for less	46	72
Financial (constraints) returns and incentives lacking (so developers not delivering)/time for repayment of capital cost/timescales/cost of development making it unviable or unprofitable/tenants get all the savings	9	
Rental constraints/can't charge extra rent to offset capital outlay/increased capital costs of meeting zero carbon can't be passed on to tenants as rents fixed/inability to recover//RSLs have no means of recouping added cost for providing zero carbon homes	5	
Need more affordable homes but additional cost will result in less/tension between achieving required grant rates and delivering more expensive design features/tension between Housing Corporation needing to meet year on year efficiency targets yet paying higher grant to cover extra build costs of zero carbon homes/cost achieve doesn't give any cost benefit value to funders and wouldn't be value for money until this is a target for all housing	5	
Lack of funding, investment/long term investment/security of funding	3	
Future liability for costs	1	
Deliverability	2	
Mortgages	1	
Private line requirement if off-site	1	
Community infrastructure levy (competing planning gain requirements)	1	
Attitude and lifestyle-related		
Education of public required/education of tenants to use equipment properly to reduce costs	7	25
Acceptability of appropriate life style/attitudes – tenants would not want to take risk/lifestyle challenges (parish, community, tenants)/unwillingness of people to live in their culturally changed society/public will not want to buy them/lack of consumer desire	7	
NIMBYism/ public opposition (to wind)/local opposition to innovative designs	4	
Developments too small to benefit from economies of scale/small scale doesn't work/how to make small rural sites affordable investments	3	
Construction industry and builders, i.e. private developers/private developer resistance	2	
Willingness of client group	1	

Lack of long term developer commitment to developments	1		
Technology-related			
Affordability of technology/achieving cost efficiencies of technologies required to meet CSH Level 6/technologies not being developed at reasonable cost for use within required time	5	18	
Replicability of technology/mainstream production of renewables/lack of renewables/technical barriers to on-site renewable electricity	4		
Uncertainty over future maintenance and replacement costs/spare parts long term/resources in place for 'what if' scenario	4		
Technology not sufficiently advanced	2		
Lack of scale for production/no economies of scale	2		
Infrastructure not available to support technologies	1		
Knowledge and skills-related			
Lack of knowledge (on benefits)/"what exactly do you have to do to build a zero carbon home?"/limited funds to implement learning processes/college education – designers need to be re-educated/on-going cost of training and education/getting the right design	7	17	
Lack of technical skills (in supply fitting trades) (for installing and maintaining zero carbon homes)/limited number of framework supplies eligible for LCBP grant	5		
Need to partner with LA and other experts/inability to sustain partnership working	2		
Deliverability	2		
Difficult to source independent advice	1		
Lack of political will-related			
Lack of government directive/political spin and uncertainty/not tightened up and not regulated well for private builders/not universal requirement/not enforcing CSH Level 3 on private developers/different standards for different developers, e.g. private v housing associations	6	14	
Planning policies/slow, under-resourced planning system/planning restrictions and lack of flexibility/exception policy limits sites	4		
Tick list approach/too many hoops to using/legislative hoops e.g. certification of wood but not brick or block	3		
Sustainability agenda in smaller rural communities	1		
Affordable electrical supply	2	4	
Limited on-site renewable energy services	1		
Ongoing energy supply	1		
Higher energy loss worldwide	1		
Land opportunities (availability and cost)	4		
Transport	1		
Our climate	1		
How unattractive they are	1		
Water recycling will be bad news	1		

Appendix 1

The East of England Rural Forum's Annual Conference 2008 Affordable Zero Carbon Homes in Rural Areas – can they be delivered?

5 March 2008
Holiday Inn Peterborough West
Thorpe wood, Peterborough, Cambridgeshire, PE3 6SG

Conference Programme – Morning Session

10.00am	Registration and tea/coffee	
	Conference Management and Facilitation	Ian Cooper Eclipse Research Consultants
10.30am	Welcome and introduction	John Yates EERF Chair
10.35am	Launch of the EERF and CLA Report on land availability for exception site housing. Followed by Q and A	Tim Lucas CLA Eastern Regional Surveyor
11.10am	Creative Solutions to providing affordable rural housing - is there a place for initiatives such as: '2 for 1', community land trusts, financial incentives to land owners? Followed by Q and A.	Andrew Budden Hastoe Housing Association's Rural Resource Unit and Chair of the EERF Housing Sub-group
11.40am	'The Planning Context of Rural Affordable Housing'. Followed by Q and A	Phil Kirby Strategic Director and Chief Planner Broadland District Council and Senior Vice President Planning Officers Society 2007/08
12.20pm	Practical help to the delivery of zero carbon homes – addressing the Code for Sustainable Homes how to achieve Code level 5 and 6 Followed by panel Q and A for all morning speakers	Gina Yuzbasioglu Senior Consultant, Energy Saving Trust.
1.00pm	Lunch, networking and exhibitions	

Conference Programme – Afternoon Session

2.00pm	The Housing Corporation's response to the green agenda. Funding issues – green versus affordable.	Naisha Polaine or Peter Fletcher. Housing Corporation
2.20pm	The Good Practice Forum: Presentations on at least five completed or in-progress housing schemes that incorporate a range of renewable energy or energy efficiency features. Developer's practical experience of the technology. Impact on construction process. Benefits/disadvantages for landlord and occupier. The cost implications. Thoughts on achieving different levels of the Code for Sustainable Homes. Followed by panel Q and A for all speakers	Hastoe, Orwell and Flagship Housing Associations
2.45pm	Round table discussion. What are the major opportunities for; and threats to, achieving affordable zero carbon homes?	All, with discussion leaders at each table
3.15pm	Feedback and close	John Yates EERF Chair