

improving living in scotland



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**Property Executive
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Hello and welcome to this Property Executive Planning & Sustainability Seminar,

I hope you have already begun to gather that the issues surrounding Sustainable Development in Scotland are hugely complex and very interlinked.

What I would like to do now, in the short time available, is take a light-hearted look at some of the more serious barriers and problems that the industry who are charged with delivering these laudable aims has to face or overcome on a day-to-day basis.

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- **Homes for Scotland represents the country's home building and development industry.**
- **Our membership of over 135 organisations, together with an additional 80 associate companies, provides 95% of all new homes built for sale in Scotland.**
- **Improving living in Scotland - to ensure people have modern homes in the places they want to live - lies at the heart of everything we do.**
- **Our member companies take their responsibilities to the communities in which they build extremely seriously.**
- **Output 25,000 homes or £6bn annually.**

Sustainable Housing

Watch outhere comes the health warning!

Homes for Scotland *is* the home building industry as you can see from some of these stats.

And so I can confidently say that in spite of what many un-objective observers might try to have you believe, the industry takes their obligations in this area very seriously indeed.

After all they wouldn't be in business for very long if they didn't

In fact, many now see this issue as being a key differentiator in what is a highly competitive market.

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Sustainable Housing Lottery

However, Sustainable development is about balancing *Environmental, Social and Economic* factors all at once, not in isolation.

Because of this, there are some real difficulties and unknowns in achieving Sustainable Housing, some might even say that its a Lottery!

Now its nearly the end of the week, and I don't know about you, but its good to have a bit of fun now and again, so lets play the developers "Sustainable Housing Lottery"!!!!!!!

We have heard a lot about policies, codes, regulation, facts and figures in the press, but lets look at the subject from a different angle.

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- **Scottish Climate Change Bill** – 80% reduction in Carbon Emissions by 2050.
- **No appetite for Code for Sustainable Homes** – “not invented here”.
- **Mandatory “Lifetime Homes” standards** - May 2007
- **Complete autonomy in relation to Building Standards, Planning System, Local Authorities, Property Law, Affordable Housing and other developer contributions**
- **“Housing Supply Task Force”** – Stewart Maxwell.

Sustainable Government

The context here is that Scottish Government is committed to achieving Carbon reduction that are actually twice as difficult as the rest of the UK.

Yet they don't want to adopt other UK measures such as the Code for Sustainable Homes that could bring consistency to the interpretation of policy agenda.

On top of which a wide range of other apparently equally important and vital policy objectives are also being pursued and added into the mix.

Whilst we all recognise, as being signalled by the Housing Supply Task Force, that we actually have a fundamental housing supply crisis, (especially in the context of affordability), that needs to be addressed by major increases in the output of new homes across Scotland year on year for the foreseeable future.

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- **SPP 6 – Renewable Technologies, was issued in Mar '07 just before Scottish Elections.**
 - Requires 15% of a buildings energy demands to be supplied from renewable sources, on top of any carbon reductions stipulated in May 2007 Building Standards
 - Cumulative floor area of more than 500m2
- **“PAN 84 – Reducing Carbon Emissions in Buildings” , guidance on how to apply above – 10th Mar '08.**
- **Also PAN 45 Annex - Micro Renewable Technologies**
- **But, the 34 different Planning Authorities in Scotland can choose to apply this in their own way!**

Sustainable Planning

On the Planning front, SPP6 and PAN 84/PAN 45 all point to the desire for the increased use of renewable technologies with all buildings.

But without actually examining or explaining the full embodied costs, benefits or carbon footprint of such measures.

In addition, because these are only “advisory notes”; all 34 planning authorities in Scotland can apply, interpret or ignore these needs in light of their own political agenda.

This does not engender confidence or certainty within the industry on what way to jump or even where to invest your hard earned resources to respond to the main policy agenda that is simply “carbon emission reduction”.

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- **Edinburgh, in place and applied.**
 - **Highlands, in place for 3yrs but largely ignored.**
 - **Glasgow, within City Plan 2 Draft only.**
 - **Falkirk, out for consultation.**
 - **Aberdeenshire, consultation closed.**
 - **Mid Lothian and West Lothian, published/issued.**
 - **Fife, covers some technologies but not all.**
 - **Others? who knows.....**

Sustainable Planning

For example, this list demonstrates the wide variety of approaches being developed amongst those planning authorities that we know about.

Nevermind the rest who have yet to go public with their thoughts.

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CSH level	Reduction in heating, DHW and lighting w.r.t 2007 Regs	Comments	English Regs routemap	Sullivan Report Road map
1	10%	EST 'Good practice'		
2	18% EcoHomes "VeryGood"	Edinburgh - ESSB SPP6 – 15%		
3	25% Ecohomes "Excellent"	EST 'Best practice' 2% - 5% overcost	2010	30% + "Nordic" by 2010
4	44%	Near-Passivhaus	2013	60% by 2013
5	100%			
6	A 'zero carbon' home		2016	"Net zero carbon" 2016/2017

Sustainable Building Standards

Moving into the context of building standards, which at least have the very useful quality of being standardised across Scotland, you can see from the right hand column that we have set ourselves some very stretching goals on the road to "net zero carbon" homes by 2016.

This aim or target is extremely admirable, but the reality is that actually in some instance we don't yet know how best to achieve this type of performance in the mass market. Even if we did, there isn't any evidence yet that consumers either want to pay for these or are happy to accept the changes in lifestyle that they require.

Private developer's aren't responsible for social engineering or public policy delivery, they respond to the express needs of and deliver what the mass market demands. If they don't do so, then they die or shrink into a niche player.

Table 1(a): Average additional construction costs per dwelling of Code levels 1-6 (2008 costs)

Code Level	Energy	Water	Other (mandatory plus flexible credits)*	Total
1	£337	£0	£378	£715
2	£1,890	£0	£708	£2,598
3	£4,626	£125	£1,236	£5,987
4	£7,077	£125	£3,173	£10,375
5	£11,478	£2,018	£3,006	£16,503
6	£29,322	£2,018	£4,046	£35,386

*these are indicative for flexible elements

Lots of people get their knickers in a twist about the costs of low or zero carbon development, especially when these are put forward by the private sector as a reason not to take on board a new initiative.

They are typically sceptical about the accuracy and relevance of the amounts quoted, “they would say that wouldn’t they”.

But for discussion, take this set of figures, which demonstrates that it will cost an additional £35,000 to deliver a CSH level 6 “zero carbon” house.....

Ask yourself two vital questions:-

- Would I be prepared to pay that level of premium to have a house like that, and, could I afford too?
- If not, what changes would it take to make that level of cost uplift acceptable?

Oh, by the way, these set of figures were produced by UK government in their own Regulatory Impact Assessment for making the Code for Sustainable Homes mandatory which was published in July 2007. This is the governments own estimate of the implications, not just the industry bleating about it.....Prelims, profit, attendances, land density, fees and interest are not included.



37. Cyril Sweett¹⁵ when considering the implications of moving from EcoHomes Very Good to the draft Code for Sustainable Homes (CSH) concluded that Lifetime Homes did not have a significant impact on overall project costs because the requirements of the revised Part M of Building Regulations now require many of the same considerations to be addressed as a matter of course. It is estimated that compliance with the Lifetime Homes standard could result in additional costs of around £550 per home.

39. However Ainsley Gommon¹⁷ found that when standard house designs are modified it could cost in the region of £1,500 extra per family dwelling and that the 'extra-over' area required to accommodate the standards for each of three 'pattern-book' house types. The study found the extra space required for and cost of providing the standards was respectively:

House type	4 person 2 bed	4 person 3 bed	5 person 3 bed
Base build area	72.5m ²	78.9m ²	85.00m ²
Extra-over area	4.47m ²	3.78m ²	3.00m ²
Extra cost	£1615	£1570	£1435

Let take another related issue to cast some light on the multi-tiered difficulties here encountered.

May 2007 also saw the introduction of mandatory compliance with “Homes for Life” principles within the Scottish Building Standards, these require that all homes have key facilities designed in to take due regard of the needs of people with disabilities and mobility issues.

This table shows that average socially affordable house now has to have an additional 3 to 5m² in floor area to accommodate such provisions, the additional construction and space costs of which equates to £2k a home. That’s for every new home in the country from now on.....when Scottish private 2 bed homes are in the region of 60m², you can see this effect is much more severe.

Incidentally, this figure is drawn from the same report as the previous one, but in England such measures are still voluntary and will stay that way until 2013.....

Within the context of worsening affordability does this actually represent best value, or should we instead be targeting investment and measures in actually helping the people who have such important and fundamental needs rather than penalising the majority of the buying public?

The point is that we cannot just keep adding to the burden or cost and expect individuals to simply stump up, eventually the market will rebel and refuse to accept these. In the context of a widely recognised difficult economic climate this basic commercial understanding must feature much more strongly in our thinking.

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- **NHBC**
 - **Zurich**
 - **Premier Guarantee**

 - **None of them will warrant these devices.....**
 - **All are excluded from the structural cover, being treated like fixtures and fittings.**
 - **Liability for maintenance, repair and servicing falls initially to homebuilder (2yrs) then homeowner (as long as they own home).**

Warranty Standards

Warranties , insurability and servicing costs are another area where we need to think very carefully.....

All of the major home warranty providers, as listed here, (without which you cannot get a mortgage on a new home), exclude renewable devices from their standard warranty cover.

This means that all liabilities arising from such devices fall back at the feet of the homebuilder initially , but ultimately with the homeowner. That liability will have to be priced into the deal.

In many cases people haven't a clue how to programme the DVD, yet, we expect them to be able to understand, manage and fund the upkeep or replacement of complex control gear, meters, power and heat generating devices.....

This could be storing up a wealth of problems and future increased carbon emissions if people simply ignore or don't listen to the advice that they receive. It is perfectly possible that the reputation of both house builders and the renewable industry could be dragged down by horror stories that so arise.

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- European voluntary standard, approx. CSH Level 4 - 5
- www.Passivhaus.org.uk managed by BRE
- Typical U-values 0.15 (opaque), 0.8 (windows)
- Airtight - 1.0 m³/m²hr @ 50Pa
- Efficient MVHR (above 80%)
- Minimal thermal bridging
- Attention to solar layout
- 15kWh/m²yr space heating demand
- 120kWh/m²yr total primary energy use
- Usually a 1kW 'post-heater' is sufficient, with solar DHW
 - Often electric – but not in UK (carbon intensity of generation mix)

Passivhaus Standards

The Passivhaus standard is a very interesting example of what is possible even now, but this would only get you roughly half way to where we are aiming to be in eight years time.

It is quite common in Germany and some other European countries right now.

It stipulates very high insulation standards and very low heat and power consumption standards, roughly a tenth of what would be typical in this country, even though they have very similar extremes of climate.

But to achieve this standard in Scotland we would need to import many European products and labour/skills; then educate our customers on how to live within such a house type, and ultimately rely on them to actually use and maintain the house in that precise way.

So clearly much still needs to be done on the supply chain, skills development and social norms to ensure that our customers aren't being used as guinea pigs in the practice of government policy.

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- **zero carbon:** “no carbon-emitting fuels are burnt on site, and we do not import any electricity from the grid”
 - **net zero carbon:** “we do burn carbon-emitting fuels on site but we export, to the grid, locally-generated renewable electricity to make up for it”
 - **carbon neutral:** “we import, via the grid, remotely-generated ‘additional’ renewable electricity”

Importance of Language

Now we come to the importance of language!

It's very hard to communicate if you aren't speaking the same language as your audience,
but in this policy forum people fire off all sorts of language to describe what they say they are aiming for,
without thinking in enough detail about what they actually mean.

UK Gov has gone for “zero carbon” – yet no one is able to explain how to achieve this!!!!

To their credit at least Scottish Government is talking about “net zero carbon”, which is much more foreseeable, but in the immediate future we are actually talking about trying to achieve low carbon or “carbon neutral” developments as first step.

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- Entirely **New Planning Act** – All secondary legislation is only just developed - not complete until Oct '09 earliest.
- Currently 58% of current Scottish Local Plans are more than 5yrs old, and 17% of plans are more than 15yrs old.
- **Scottish Building Standards Agency** is being abolished and brought into new “Directorate of Built Environment” combining Planning, Building Standards and Architectural Policy within Scottish Government – Mar '08.
- **Communities Scotland** is being abolished and brought within Scottish Government’s direct control – Mar '08.

Sustainable Policy Context

Just to make life even more interesting, we also have to take account of an entirely new Planning system, together the abolishment of two key government agencies that are relevant in the context of housing development.

All of which slows down the system and distracts finite resources away from solving what are clearly immediate and pressing opportunities and threats.



Number 3! And to use the “Lottery” analogy....this is the bonus ball.....


This is the number of Scottish Government Ministers across which the functions critical to ensuring the delivery of Sustainable Housing are spread.

- Cabinet Secretary, John Swinney (Finance and Sustainable Development)
 - Ministers; Jim Mather (Energy Policy)/Stewart Stevenson, (Planning & Buildings Standards)
- Cabinet Secretary, Nicola Sturgeon (Housing & Regeneration)
 - Ministers; Stewart Maxwell - Communities and Sport, (Housing Policy)

Given that Housing building alone contributes over £6BN to the Scottish Economy and actively employs 100,000 people, it is incredible that even today the industry is not able to interact with a singular fiscal, political or policy entity Charged with overall responsibility for turning this agenda into a reality.

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- **Entry brochures for this year's Homes for Scotland Awards scheme totaled 70 from over 30 different home builder member companies, the most for any we have run.**
- **Focusing on the creation of places, entries were sought in the categories of urban, rural (both of which include conversion) and masterplanning.**

Our Awards

In spite of all of these practical difficulties, many individuals and companies within the industry are achieving exciting and promising things.

You will notice that I haven't said the industry "cant" or "wont" do anything anywhere within this presentation. WE are "willing, able and ready" to rise to the challenge ahead of us, but this needs more thought and careful balancing of public policy priorities because we cant do everything all at once. In any case, this wont necessarily be the best way to get the most "bang for our buck".

The prize and stakes of this game are very high indeed, there are some very big numbers immediately at our finger tips

However, we shouldn't let that put us off making decisions.

Often the best way to learn how to avoid mistakes is to pick the brains of someone else who has been through the mill already, and that's why we are putting so much effort into publicising good examples at home such as promoted within our own Designing Places Awards

and why don't we think about taking advice from neighbouring Scandinavian countries who have started out slightly ahead of us? This would be so valuable.

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Thank you for letting me borrow your brain for a few minutes.

You can contact me in the usual ways, and at this email address, if I have sparked your interest or you would like to understand more.

In the meantime, I hope you enjoyed our brief respite from the normal routine!

JF
10/04/08