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Subject: Energy efficiency for domestic RHI
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Iain et al,

Just following on from Tuesday's meeting, I thought it would be useful to set out some thoughts on the issue relating to energy efficiency in the domestic sector.

As discussed, the key point is that energy efficiency is encouraged and rewarded under the domestic RHI. If it is determined that payments under a domestic RHI are made via a deeming methodology rather than metering there is a perceived danger that energy efficiency would actually be punished *eg, if there are two similar sized homes built at same time, one of which has double glazing, loft insulation, cavity wall insulation etc whilst the other as little to none energy efficiency improvements – the energy efficient home will have a much lower assessed heat demand than the inefficient home. In a simple deeming scenario where heat demand x tariff = yearly incentive, the inefficient home receives a higher payment.* This could lead to a perverse incentive to not install energy efficiency measures or to make your house as inefficient as possible when the assessment of heat demand was being carried out.

Therefore a set level of energy efficiency must be required for installations to be supported under the domestic RHI. **The underlying principal should be that householders must be encouraged to make their home as energy efficient as it is practicably and financially possible before RHI payments are made.** In GB this is proposed to be implemented via Green Deal Assessors advising on a number of appropriate measures (and offering loan support). As this scheme does not apply in NI a separate assessment must be made. Given the range of homes in NI and the different energy efficiency measures it would be problematic to impose a prescriptive list of requirements (i.e. loft insulation, cavity wall insulation, draught proofing, high performance external doors, pipework insulation, double glazing etc). This would also add to administration costs in terms of ongoing checks.

Therefore, the option that was discussed briefly on Tuesday, would be a graduated tariff depending on the levels of energy efficiency. This could either be done based on the heat requirement per area of home (kWh per m2) or via Energy Performance Certificates.

An appropriate threshold would need to be set that would be achievable for homes but would ensure homes were up to a high standard and that heat loss (or the risk of incentivising inefficient homes) minimised. Further consideration may be different tariffs depending on the energy efficiency levels, a purely illustrative table is provided below.

Heat demand for home	Tariff applicable
Less than XX kWh/m2 (high energy efficiency)	150% of tariff
Between XX and XXX kWh/m2 (medium energy efficiency)	Standard tariff
Above XXX kWh/m2	50% of tariff

(low energy efficiency)

Alternatively the tariffs could possibly be set via Energy Performance Certificates, eg

- i. A rated property gets 150% tariff
- ii. B rated property gets 140% tariff
- iii. C rated property gets 120% tariff
- iv. D rated property gets 100% tariff
- v. E rated property gets 80% tariff
- vi. F rated property gets 60% tariff
- vii. G rated property gets 50% tariff

These options are purely illustrative at this point but hopefully demonstrates the objective that homes that are efficient (and are therefore using less heat) are rewarded and homes that are inefficient (and using more heat) are discouraged and disincentivised. Implementing either of these options would ensure no one is ruled out of the domestic RHI because of energy efficiency requirements (as every standard is achievable unlike a prescriptive checklist of required actions) but there is an added incentive for deploying energy efficiency measures. As discussed, in practice, in a deeming scenario more efficient homes could be penalised as their expected heat demand would be lower and payments less. In this system that penalty is removed and householders are encouraged to become more efficient.

This is only some early thoughts on this matter and exact consideration on heat levels/standards, corresponding tariffs and methodology needs to be considered. Discussion with our Department of Finance and Personnel colleagues that have responsibility for EPCs might also be required.

This idea of a graduated tariff could also be utilised when considering district heating 'uplift' i.e. x amount of properties or x amount of heat delivered gets x% of tariff (increasing as the scheme gets larger?). Again, just an early thought.

One final issue re Domestic RHI that we didn't discuss on Tuesday is the treatment of domestic homes requiring <45kw size systems – this has been an issue for local stakeholders as such systems are currently not eligible for RHI or RHPP, my understanding from DECC is that this is unlikely to be addressed in GB Phase 2. This is something we want to address and it is a matter of how these systems are treated, either included in the domestic RHI (with shorter tariff lengths and different tariff levels) or included in the non-domestic RHI (with 20 year tariffs and in the existing tariff levels set). This is just something to be aware of and bear in mind. Given the lack of a MCS equivalent over 45kw it may be necessary to treat domestic installations over 45kw in the same way as non-domestic installations. We can discuss again at some stage.

Hope this is of some use in considering energy efficiency in domestics. Mahmoud raised a number of interesting points re energy efficiency requirements for commercial operators under the RHI that we will need to consider internally.

Regards

Peter