the GREEN HOUSING forum

Sustainable Futures for Social Housing

FUEL POVERTY

TACKLING THE TRIPLE INJUSTICE

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INTRODUCTION

The Green Housing Forum is a place for social housing professionals to engage, network, share ideas and disseminate good practice around sustainability.

The increasing and imminent pressures facing registered providers, such as welfare reforms and budget cuts, make balancing the needs of tenants and the environment ever more challenging.

Launched in March 2014, the inaugural Green Housing Forum brought leaders in the social housing sector together with industry experts to provide key insights into the future for sustainable housing.

THEME

The theme of the inaugural Green Housing Forum was **Fuel Poverty: Tackling the Triple Injustice**.

Around one in four of the UK population is classed as being in fuel poverty. A recent report by the Joseph Rowntree Foundation and the Centre for Sustainable Energy found that those at the bottom of the social scale face a triple injustice: low-income households emit the least, pay the most and benefit the least.

Featuring insight into fuel poverty from the Centre for Sustainable Industry and the National Housing Federation alongside views from Two Rivers Housing and Daikin UK, the first Green Housing Forum identified industry-informed practical solutions for both new and existing homes.

The theme of the inaugural Green Housing Forum was Fuel Poverty: Tackling the Triple Injustice.

IAN PRESTON

Research Analyst at the Centre for Sustainable Energy

Ian is the lead author of a recent report on behalf of the Joseph Rowntree Foundation, which focuses on the triple injustice placed by energy policy on low income households. Ian is an expert in the field of analysis and insight into fuel poverty within social housing.

Rising prices for essential goods and falling incomes are putting increasing pressure on household budgets. The cost of energy is a key factor in this; the average household annual energy bill has risen five times faster than income to over £1,350, an increase of 159% on the average energy bill 10 years ago in 2004.

This was compounded when all of the 'Big 6' energy suppliers increased their prices by 6-12% in 2013, blaming "Green Taxes" and the "Energy Company Obligation" for the rise, despite continuing to make strong profits.

So what is being done by the government and where are we in terms of energy policy?

SOCIAL AND POLITICAL LANDSCAPE

In 2013, the Department for Energy and Climate Change redefined fuel poverty into a low income, high-cost definition which applies across two thresholds:

- A low-income threshold, defining those households which are in income poverty, after accounting for their required fuel costs
- An energy cost threshold, which is set at the median of total energy costs for all households (equivalised for household size).

These definitions are used to find those who fall into the 'fuel poverty gap', and the severity of that fuel poverty, by assessing the extent to which a household falls below the energy cost threshold. In essence, the gap is the difference between a household's fuel bill and their overall income – if the income is £700 and the fuel bill is £1200 then the fuel poverty gap is £500.

BUT WHAT DOES THIS MEAN IN TERMS OF NUMBERS?

With the new definition, there are 2.3 to 2.4 million households in the fuel poverty gap, which, due to the use of averages in calculating, will remain static: if fuel bills go down in the UK then the median just moves with it.

THE TRIPLE INJUSTICE

If we look at low income households, we find that they are contributing proportionally much more towards costs – despite emitting the least – while also benefitting the least from policy interventions.

Put simply, higher income households are responsible for a disproportionate share of total domestic sector emissions: the richest emit twice that of the poorest 10% of households in terms of household energy consumption. When transport emissions are also included, this suggests that the richest 10% of households are actually emitting more than three times higher carbon emissions than the poorest 10%.

This has important implications for the distribution of current climate change policies. Where policies increase domestic energy prices, the impact is likely to be detrimental for low income households: while the poor consume and emit less, the costs of energy represents a far higher proportion of their income.

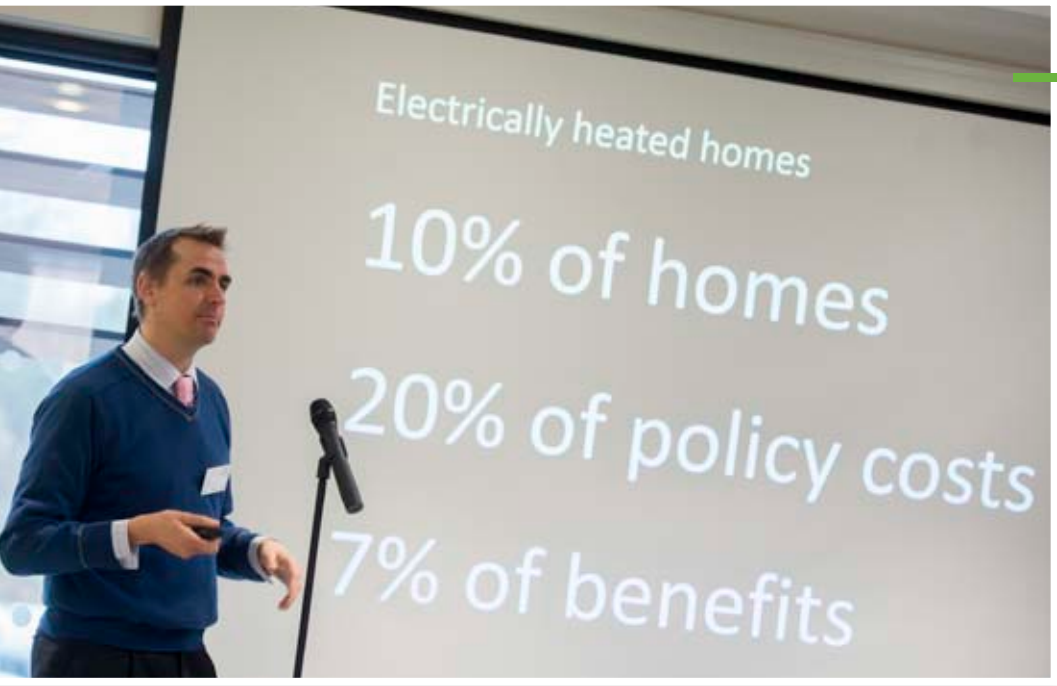
FUTURE POLICY

Firstly, I would argue that the DECC should shift future policy costs to focus on gas bills – particularly ECO – but should not just serve gas customers; it should also aid rural and off-gas mains households.

We also need to think about re-distributing policy costs, and perhaps taking them away from homes on Economy 7 heating to better protect those who have no installed measures. This would ensure that policy benefits are targeted on the hardest hit by 'reserving' the measures for them.

I would also argue that smart metering and storage are the way forward but, while there have been great innovations in the development of generating and storing energy, there needs to be an incentive for both customers and providers to adopt these.

Lastly, that the government needs to create a coherent focus on fuel poverty and heat strategies. A system needs to be created where policies work together. For example, if one policy adds a lot of cost to electricity, then another needs to be in place that analyses these costs, finds who is hardest hit and then implements measures to tackle the problem.



The richest emit twice that of the poorest 10% of households in terms of household energy consumption.

GILL PAYNE

Director of Policy and External Affairs at the National Housing Federation

Gill has worked extensively in both the public and the private sector, and leads the federation's work in the areas of campaigns, policy, research and communications.

Traditionally, the social housing sector has focused on fuel poverty as just a social issue. However, as the sector is now learning with the advent of various welfare reforms, there is a business case to be made alongside the social aspect.

THREATS

Fuel poverty has an obvious negative effect on the health of tenants. Cold homes pose health risks such as cardiovascular and respiratory illnesses alongside mental and social issues, with the Office for National Statistics stating that there were 31,100 "excess winter deaths" that could have been avoided in 2012/2013 at a cost to the NHS of £1.36 billion a year.

Colder homes are less energy efficient – 50% of UK fuel poor households have homes with solid walls, making heat harder to trap, easier to escape and therefore colder and more expensive to heat. This is compounded further if the household is on a prepayment meter - as many social tenants are – which may raise the difficult choice between heating, eating or paying the rent.

This is further heightened by welfare reform. The bedroom tax and universal credit – when it is rolled out – will, in most cases, reduce the income of a social household and provide more risks of poverty and rent arrears.

OPPORTUNITIES

All of this means that the sector has to make it a business imperative to tackle the issue, in order to protect tenants' incomes.

Fortunately, there are already examples of social housing providers working with private companies and within their neighbourhoods to tackle the issue on a business and social level.

An example of tackling fuel poverty from a business perspective is Hastoe, which integrated affordable warmth schemes into maintenance programmes by carrying out cavity and loft insulation alongside boiler replacements and fitting new windows – all of which saved tenants energy and thus reduced bills.

From a social perspective, landlords can look to their own communities to help fight fuel poverty. By engaging with the community, landlords can create "green doctors" or "energy champions" to provide advice and support to tenants.

There are also many things that can be done that combine business thinking with social aspects. Creating community-based supply companies can help greatly to reduce the impact of fuel poverty as the control of energy is put in the hands of the community. Introducing smart metering again puts the control in the hands of the tenant and/or the landlord, as the smart meter effectively monitors fuel usage to help inform future consumption plans.

The Office for National Statistics stated that there were 31,100 "excess winter deaths" that could have been avoided in 2012/2013 at a cost to the NHS of £1.36 billion a year.

Lastly, social landlords should be looking to develop plans for innovative solutions in new build projects. While more expensive to develop currently, Passivhaus builds cut fuel consumption right down to 10% of the UK national average, while other building projects such as straw bale homes can insulate homes by up to three times the average, reducing bills to just £120 a year for a three bedroom house.

GRANTS AND INCENTIVES

Implementing these measures incurs a cost, but there are grants and incentives around that can help.

The Energy Company Obligation – while having many faults – is providing a source of funding until March 2015 to implement measures that tackle fuel poverty in communities.

It is also worth keeping an eye on a current consultation from the EU Structural Fund that will hopefully deliver a pot of money to be distributed through Local Enterprise Partnerships. The plan will help cover the costs of retrofitting social housing stock so that we can meet EU requirements to move to a low-carbon economy, achieve social inclusion and combat poverty.

Overall there is a real tension out there. We know that there are difficult circumstances. There's no silver bullet. But a great deal of innovative work is being carried out in the sector, and there's a lot of room for manoeuvre in future, as long as social landlords combine innovative business-style thinking along with their ongoing social commitments to delivering the best homes for social housing tenants.

IAIN BEVAN

Manager for Heating & Renewables at Daikin UK

As Daikin UK's Manager for Heating and Renewables, Iain is committed to providing renewable heating solutions to social housing. He discusses the benefit of the Renewable Heat Incentive for social landlords and how providers can help.

It has been discussed for a long time now, but the eagerly awaited Renewable Heat Incentive (RHI) is finally here.

To give you a brief background to the RHI, the scheme is designed to support funding for landlords wishing to install renewable heating projects such as air source heat pumps (ASHP), biomass systems, ground source heat pumps and solar thermal installations.

The incentive will pay out using a tariff-based system; for example, for every kilowatt hour generated from an air source heat pump, the landlord will receive 7.3p, while for every kilowatt hour generated from solar thermal installations, 19.2p will be paid out.

The benefits of applying are obvious – especially if a social landlord is already thinking about implementing renewable technology amongst its housing stock – but there are timescales for the funding that need to be held in mind.

TIMESCALES FOR FUNDING

From spring 2014, the RHI tariff will be available for owners of heating systems, including social housing providers, and it is also available in the form of 'legacy' payments to providers who have installed an eligible renewable technology installation since 15th July 2009.

However, if any scheme provider applying for funding has already received support from the Renewable Heat Premium Payment scheme (RHPP), then this will be deducted from RHI payments.

What's more, applicants who have already received RHPP funding must apply for the RHI within the first year of the scheme being implemented, otherwise the application will not be processed.

Secondly, if a social landlord has already received RHPP funding either on or before the 20th May 2013, then applications for payments can only be made on or after the 9th July 2014, while those who have received RHPP after that date will only be able to apply from 9th October 2014, six months after RHI starts.

Lastly, for those landlords who install a renewable heating scheme after RHI is introduced, then funding must be applied for within one year of the system's commissioning date in order to be eligible.

With regards to all these restrictions, the timing of any application is crucial for landlords to be able to maximise the chances and benefits of receiving funding.

CHALLENGES FOR SOCIAL HOUSING PROVIDERS

Alongside all these restrictions, it is also important to consider the implications for your own tenants in ensuring the success of any renewable heating project.

While you may have secured funding and have all the details of the scheme in place ready for installation, it is imperative that tenants are approached so they can understand what the system is, how to operate it and how it will benefit the property.

One solution is to involve manufacturers and installers in tenant consultations. By organising informal meetings, landlords are given the opportunity to explain the new system and to reassure households that the system installed will provide a reliable source of heat and will cut costs in the long term.

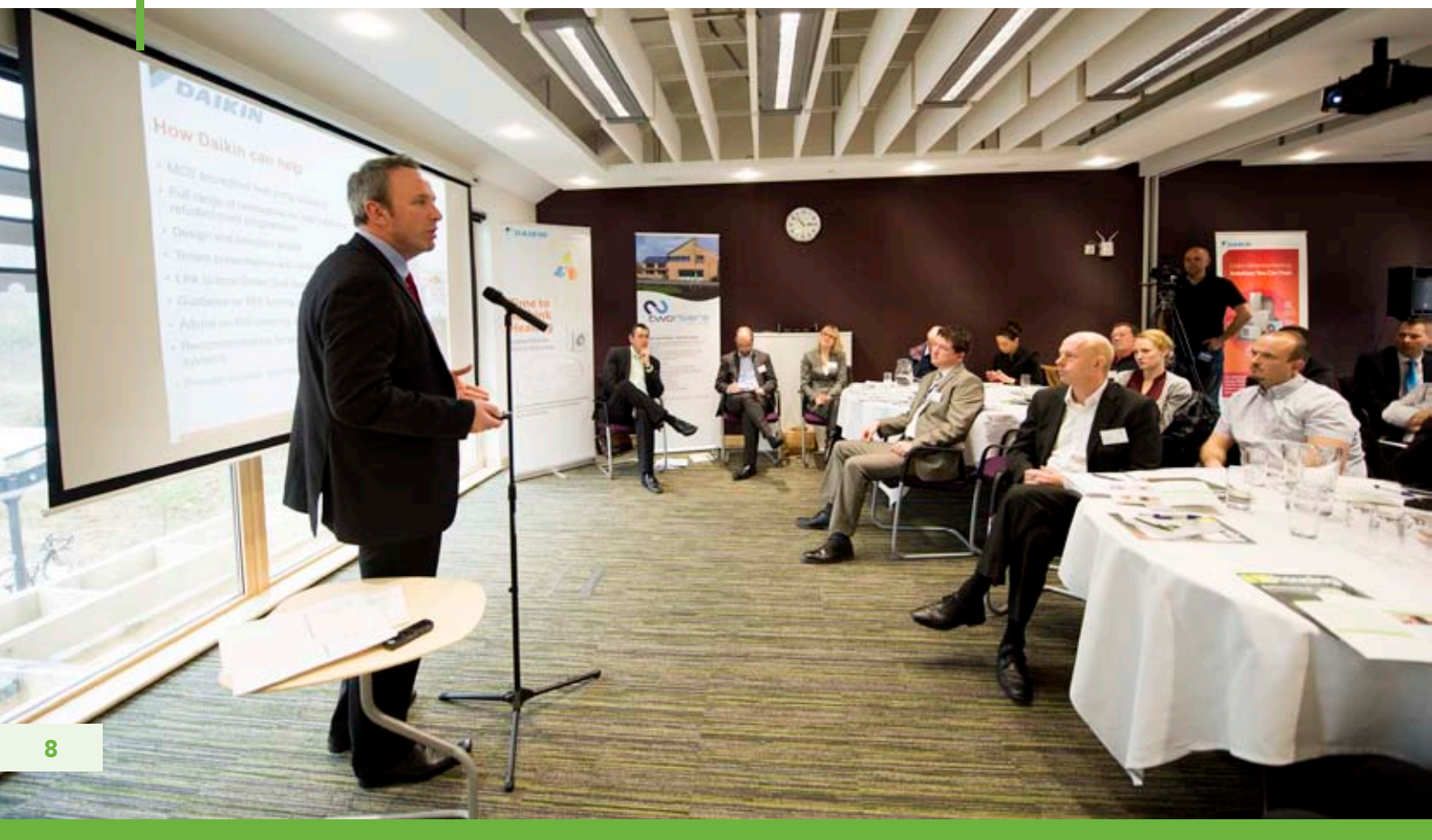
The timing of any application is crucial for landlords to be able to maximise the chances and benefits of receiving funding.

It is also important to demonstrate to tenants how to use the new system most effectively to ensure that their fuel bills – and the cost to the landlord – are kept to a minimum whilst ensuring a warm home and avoiding tenants having to choose to 'heat or eat'.

Overall, there are a lot of benefits that arise from applying for RHI, as long as it is carried efficiently and effectively so that a social landlord has the complete buy-in from the tenants.

At Daikin UK, we believe that it is important that providers to the sector sit down with asset management and development teams to go through the various aspects of RHI and ensure that you respond swiftly and effectively to the funding opportunities, as well as helping to design certified systems that are supported by the Department for Energy and Climate Change.

The RHI can provide a great opportunity for the sector to invest in renewable heating technologies, which will in turn have a positive impact by reducing fuel poverty and ensuring warmer, sustainable homes and happier, healthier residents.



MATT HUNT

Director of Development and Asset Management, Two Rivers Housing

Matt joined Two Rivers Housing in 2003 with over 20 years' experience in construction and architecture. Matt oversees Two Rivers' commitment to ensure all properties meet the decent homes standard and provide fuel economic solutions to residents.

Registered Providers (RPs) are residential property businesses with a strong social purpose; testimony to the fact that successful businesses can be run on strong social and ethical values.

The Homes and Communities Agency, as the regulator for the sector, is placing increasing emphasis on value for money. RPs need to understand the current return on their assets and have a strategy in place to optimise future returns on their investment. This puts increasing demands on social landlords to predict these future returns to support their wider objectives and service delivery.

Given the core social value and purpose that exists within the sector, it is important that future returns are measured in both financial and social respects. The energy efficiency of the homes that social landlords provide is an important factor, both in terms of social objectives and business considerations.

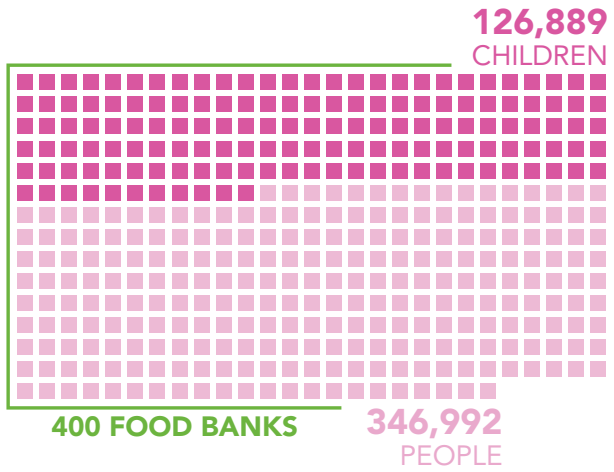
SOCIAL VALUE

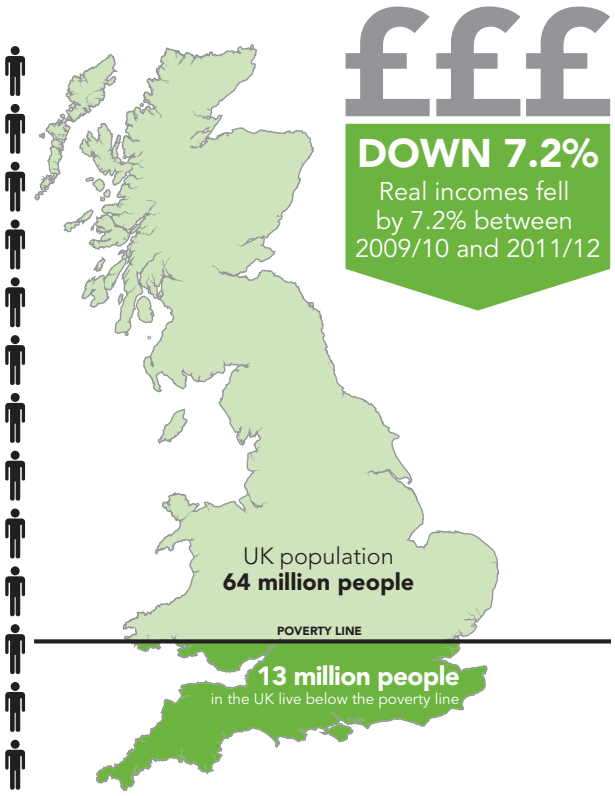
Many social tenants are at the lower end of the economic scale. Research by the Institute of Fiscal Studies has shown the lowest 10% have seen the greatest level of real income reduction, which is comparable only to those with earnings greater than £100,000 per annum.

- 13 million people in the UK live below the poverty line
- 400 food banks help to feed 346,992 people, of which 126,889 are children
- Real incomes fell by 7.2% between 2009/10 and 2011/12

Households at the lower end of the economic scale also spend a higher proportion of their income on energy, despite the fact they actually consume less energy and generate lower levels of carbon emissions.

With this in mind, it is important that the sector understands the social, health and well-being benefits that are derived from energy-efficient homes.





Over the past 10 years, gas prices have increased by 190% and electricity by 120%.The Hinkley Point expansion announcements were outlined on the basis that energy prices will double over the next 10 years. This provides a useful insight of where energy prices could conceivably be in a decade's time.

It is important to consider what this could mean for our customers in the future. Affordable and social rents will rise by 1% from April 2015. The National Housing Federation's Home Truths research showed that incomes could rise by 48% over the next 10 years, equating to a 4.5% increase per annum, with the exception of social tenants' incomes – meaning that more of their income than ever will be spent on energy.

BUSINESS DRIVERS

The future affordability of homes provided by Registered Providers is an important business consideration. Property that becomes unaffordable could potentially lead to increased tenant turnover, and prolonged void periods resulting in increased costs and higher rent arrears as people have to choose to heat, eat or pay the rent.

Should the sector invest in new affordable housing? Whilst the target rents and affordable rents for new build affordable homes are typically higher than older stock, the combined rent and energy cost for new homes is often lower than older stock, making this an attractive option.

But what can be done for existing housing stock? Retrofit measures for older homes are often costly and funding is hard to secure. However, the Royal Institute of Chartered Surveyors' Housing Commission report set out a number of recommendations, including proposals to link target rents to Energy Performance Certificates.

Whilst this may stimulate investment, the viability will depend on: the initial capital costs and future maintenance costs of the retrofit solutions; whether the additional rental income funds the additional capital and maintenance costs; and whether the landlord has already exercised the 5% target rent tolerance.

The other key factor is the relationship between the RICS's proposed rent levels and the Local Housing Allowance (LHA).It is likely in some locations that rent levels could be very close to the LHA as rents inflate at 1% above the consumer price index. While LHA inflates at the standard rate, there could be a point of convergence. This effectively creates a rent cap and reduces the ability to fund retrofit solutions through rents.

Whilst a number of funding options are available, they don't meet the needs of all. There is also a need for stability of policy to provide RPs, funders, and installers with some certainty over the medium term so that retrofit programmes can gain some momentum.

Behaviour change is also an important component to help customers reduce their energy consumption and costs.This becomes increasingly important as new technology is installed. Behaviour change, lifestyle change and a good understanding of how to use technology are all key to ensuring tenants do not fall into fuel poverty.

ROUNDTABLE ONE

Facilitated by Iain Bevan, Heating and Renewables Manager at Daikin UK

TECHNOLOGY AND LARGE-SCALE SCHEMES

Q1: *What role does improved renewable technology play in helping to combat fuel poverty amongst social tenants?*

Everybody realises there is a role for technology to play, but at the moment the renewable technologies available incur a higher capital cost than buying and installing traditional technologies.

The challenge we have is balancing the need to try and reduce tenants' costs, with the requirement for extra capital to install new technologies.

We believe there's a role to play for manufacturers to look at ways in which we can bridge that gap, either through funding or through additional support or procurement consortia. However, I think the real challenge is to bridge that gap between the renewable technologies and the existing technologies, so that it's financially viable for the social housing sector to make the transition to renewables.

There is definitely a role for renewable technologies. As time goes on and fuels costs change, that role will probably increase – but it's managing that additional expenditure in the mean time.

One of the things that was mentioned by everybody on the table is how do you tell the tenant to heat the whole house when they can't afford to, even when installing new renewable technology?

We also mentioned remote monitoring, and specifically the cost advantage of installing the measure. This would mean the landlord would be able monitor the tenant's usage against how they should be using it and the benefit they are currently getting from their heating. This will help landlords to advise tenants in the future.

Q2: *Are there any perceived issues in undertaking large-scale renewable heating projects in new social housing builds or refurbishments? Has your organisation undertaken any large-scale renewable projects?*

Whilst all around the table had carried out projects such as ground source heat pumping, bio mass, photo-voltaic and solar-thermal, none had done so on a large scale, as there were concerns over the issues of funding and maintaining the installation, alongside tenant considerations.

In summary, the general perception was that, as socially responsible landlords, there will be further investment in renewable technologies to mitigate the potential impact of fuel poverty, so long as the risks of doing so can be reduced.

As a manufacturer, it is partially our responsibility to ensure we can help reduce those risks, but there are also other factors such as tenant consultations that can further ease the transition from traditional to renewable heating that we can all work together to achieve.

There will be further investment in renewable technologies to mitigate the potential impact of fuel poverty.

ROUNDTABLE TWO

Facilitated by Ian Preston, Research Analyst at the Centre for Sustainable Energy

ADVICE TO TENANTS

Q1: *How can Registered Providers influence the behaviour of tenants to reduce spending on heating? Are there any initiatives that could be implemented so tenants do not need to remember or change habits?*

In terms of influencing tenants' behaviour and spending on heating, we talked about how many tenants are under heating their properties by disconnecting their boilers. Many social landlords might avoid advising tenants to reduce spending on heating due to the rise of damp alongside the various health issues.

Aside from the issue of self-disconnection, we talked about influencing behaviour through tenants' agreements and induction packs to ensure that the tenants are clear how to use heating effectively from the start – particularly if they are using renewable technology or heat pumps. This would be down to the maintenance staff and housing officers to educate tenants. While difficult to implement initially, this may result in warmer homes and healthier tenants.

One initiative saw a thermostat installed alongside a heat pump that wasn't originally connected to create a placebo-style experiment. The result was that the tenants' bills went up by £100, showing that people are worse off when they are given control.

Q2: *What specific advice have you offered to tenants on fuel consumption? Has any advice previously offered been successful at reducing the impact of fuel poverty?*

Advice, financial literacy and planning are obviously key factors in regards to reducing potential or actual fuel poverty, such as getting credit unions to talk to tenants and offer them accounts, which will become more important as Universal Credit comes into the fore.

Outside of financial planning, the idea of switching to achieve cheaper fuel costs was raised, with one participant proposing to involve staff as an advocate to assist tenants to switch. This would be especially important with pre-payment meters, and could avoid a build up of legacy bills.

Lastly, there was talk on the practical aspects of getting tenants involved, such as establishing organisational schemes that will intervene individually with tenants' groups, and to get energy suppliers and 'Green Doctors' to talk to tenants directly about cost saving installations such as smart meters

There is a need for a more holistic view on financial planning, as energy costs and rent costs make up 70-90% percent of tenants' budgets, so both tenants and the sector as a whole will certainly need to get financially savvier.

Advice, financial literacy and planning are obviously key factors in regards to reducing potential or actual fuel poverty.

ROUNDTABLE THREE

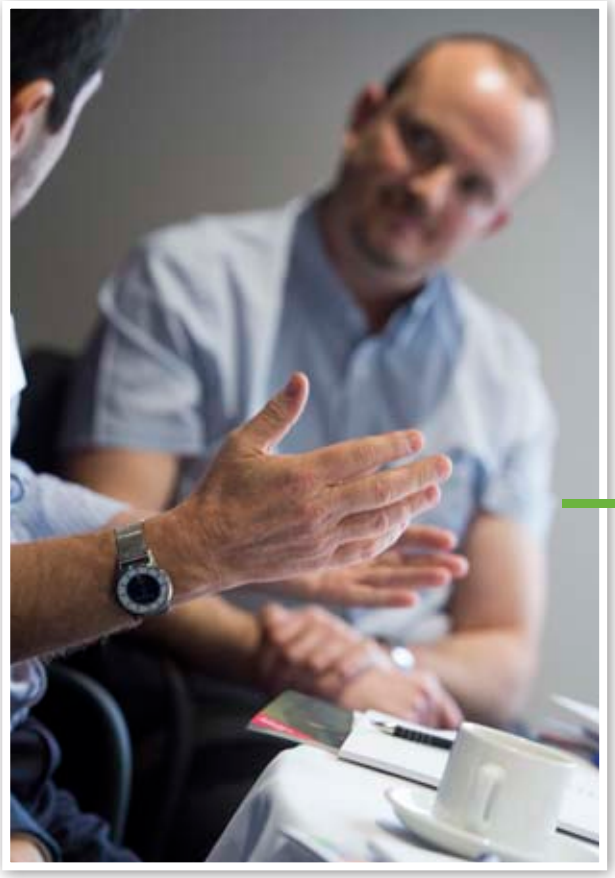
Facilitated by Gill Payne, Director of Policy at the National Housing Federation

PARTNERSHIP WORKING

Q1: *How can social landlords work in partnership with other social organisations and providers to achieve a better deal on energy for residents?*

Organisations are doing fantastic things on a local basis with tenants. However, on a wider scale, we thought that there needs to be a national voice lobbying for changes, discussing the effects of policies in the long term and helping to devise a strategy for the sector. In particular, we need to open up debate with the big six energy companies, using the great numbers of homes we manage as a footing for initiating that discussion.

By combining our voices and encouraging professionals to come together, there is also a lot that can be done for finding and teaching best practises through forums – like the Green Housing Forum – where the sector can sit down to shape strategies, learn from experience, to fight fuel poverty across organisations both urban and rural, small and large.



Q2: *How can social housing providers improve energy efficiency amongst their housing stock, and how can private companies help to achieve this?*

We had a good example of a larger housing association that was going to work with British Gas to bring together both public and private sectors to ensure both could benefit from a particular product. This could be difficult to organise – especially for smaller housing associations that perhaps won't have the same impact for British Gas. However, this idea could be taken forward with other private providers and social enterprises to encourage innovative solutions.

Again, developing a national voice would encourage large organisations such as British Gas to sit up and take notice of the sector, and to be seen to work with us to find solutions.

Housing associations also need to put a lot of time and effort from their own resources into working with tenants. Real results will only occur if your organisation spends time knocking on people's doors and talking face-to-face, rather than pushing leaflets through the door.

This again could be problematic for smaller housing associations that don't have the staff numbers to go round to all their tenants. But if we were to use that national voice and gain the support of relevant organisations, then we would have the facility to educate tenants.

Housing associations also need to put a lot of time and effort from their own resources into working with tenants.

ROUNDTABLE FOUR

Facilitated by Martyn Ford, Sales Engineer at Daikin

ENERGY EFFICIENCY IN RURAL HOUSING

Q1: *In light of the challenges facing social housing providers and tenants in the UK, what are the specific challenges facing rural social housing providers and their tenants?*

The first challenge that came up was mobile phone signals in rural areas. If housing associations are looking to install smart meters or remote monitoring of heat pumps, then a stable broadband and a mobile phone signal is important.

The demographics of housing stock is an issue, as it makes educating tenants on renewable heating, energy saving and fuel poverty a more difficult task. Logistically it's hard to put in the time and resources, especially for smaller rural housing associations.

With a large percentage of rural housing associations in off-gas areas, many will be receiving solid fuel, such as logs and in fewer cases coal, which is often free – making energy saving less of a goal for those households. There are still issues here, however, as there will be problems in getting the fuel source to the property in bad weather, which can cause major disruption especially in the winter.

Another major concern in rural areas is with regards to getting the right amount of power supply from Distribution Network Operators. In many cases there will not be enough power coming to an area when a new build scheme is introduced. Sometimes this requires the developer to subsidise a new substation, the cost of which will be passed on and thus make the site unfeasible.

Insulation measures in rural areas can also be problematic, as insulation is not as effective as required due to the age or location of the property, which could waste a lot of money.

Q2: *Facing these challenges for rural social housing providers, what energy efficient schemes would make the best business case?*

Echoing roundtable three, we believe that rural providers – which have about 25% of UK's social housing stock - should unite to lobby the big six for better energy tariffs. That could also be followed with better insulation terms and conditions, plus lower prices for installing renewable technologies.

For an effective renewable heating policy, rural housing associations need to look at a hybrid solutions for energy, such as linking solar, solar thermal, an air-source heat pump and maybe solar PV schemes together.

Lastly, rural providers need to manage their funding streams directly to make it easier to access money and not be put off by administrative hurdles to apply successfully for funding.

Logistically it's hard to put in the time and resources, especially for smaller rural housing associations.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ABOUT DAIKIN UK

Daikin Airconditioning UK Ltd (Daikin UK) is a leading supplier of cooling, heating, ventilation and refrigeration solutions for commercial, residential and industrial applications. Its product portfolio comprises a wide range of highly energy efficient climate control systems.

For the domestic sector, Daikin Altherma HT and LT Split and Monobloc air-to-water heat pump systems are available. Air-to-water heat pumps absorb heat from the air and convert it, via a condenser, into central heating and hot water systems.

A wholly owned subsidiary of Daikin Europe NV, Daikin UK has an excellent record of concern for environmental issues and applies it to all areas of the business, in many cases pre-empting international and national environmental legislation.

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