

## **Renewable Heat for South Gloucestershire**

**Report from the South Gloucestershire Environment Forum  
Wednesday 21<sup>st</sup> January 2015.**

### **Welcome**

Chair of the forum Dave Hockey welcomed everyone to the meeting, including many new members, and introduced the overall theme for the evening along with both of the guest speakers in attendance.

## **Renewable Heat in South Gloucestershire**

**Paul Knuckle, South Gloucestershire Council.**

Paul firstly introduced the context of the forum - including the Renewable Heat Incentive (RHI) and the technologies involved in delivering this energy. Paul also provided some background information relating to the possible benefits of increasing the use of renewable heating within homes in South Gloucestershire.

A surprisingly large proportion of the residential areas within South Gloucestershire are not on the gas grid, and these areas are not just restricted to rural communities or older homes, as even some newer housing estates are 'Off-Gas'. In fact 21, 000 homes in South Gloucestershire - about one fifth of all households within the district - rely upon alternative and more expensive fuel sources such as oil, coal/wood and LPG.

Paul finished by reinforcing the point that renewable heating represents a significant opportunity for homeowners in South Gloucestershire to reduce their energy bills, and stated the importance of spreading the message regarding the benefits associated with renewable heating to the wider public.

## **Overview of the RHI and choosing the best renewable heat technology in your home**



**Alastair Mumford, Regen- South West.**

Alastair began the presentation by introducing Regen and the principles of the RHI. Regen is an independent non-profit organisation that promotes renewable heating in the southwest. The RHI scheme has been in operation since April 2014 and aims to repay homeowners with the money spent on installing a renewable heat technology after a 7-year period. There are four renewable heat technologies eligible under the RHI, and there are certain advantages associated with each. However there are number of aspects a property owner should consider when determining which technology would best suit their home.

## Air Source Heat Pump

- Absorbs heat from outside air.
- Good at producing low grade heat.
- Capable of heating water as well as home.
- Most efficient with under floor heating.
- Little maintenance required.
- May require alterations to current heating system.



## Ground Source Heat Pump

- Absorbs heat from ground through buried pipes beneath home.
- More efficient than air source heat pump.
- Some excavation work required – more expensive installation than air source heat pump.
- Once installed little maintenance required.
- Can also heat water as well as home.



## Biomass

- Burn wood pellets to heat home and water.
- Compact and modern designs.
- Storage of fuel pellets is a key consideration.
- Greater storage capacity for fuel equates to cheaper running costs.
- Fuel has to be sourced from an accredited supplier.
- Can use own wood if you can prove its source.



## Solar Thermal

- Uses sun's energy to heat water within home.
- Evacuated tubes are placed on roof surface – ideally south facing.
- Requires a specialised heat storage system.
- Cheapest of the four technologies to install.



The Department of Energy and Climate Change (DECC) state that currently 70,000 households benefit from renewable heating in the UK, and there is substantial scope to vastly increase this number in the near future. In order for a household to qualify for the RHI specific criteria need to be met. Alastair outlined the following stages of the domestic RHI that homeowners will have to progress through:

➤ **Household requirements**

In order to qualify for the RHI a Green Deal assessment and an Energy Performance Certificate (EPC) is required to establish the energy usage and energy efficiency of the existing property. There are certain criteria within the RHI relating to these aspects, such as adequate loft and cavity wall insulation.

➤ **Quotes**

If the specifications of the property meet these requirements, homeowners are then advised to gather three quotes from separate installers. The installation costs vary significantly depending upon the heating technology selected. To be eligible for the RHI, the installers that are used have to meet the standards of the Microgeneration Certification Scheme (MCS). At this point Alastair suggested using REGEN's free chain directory for renewable heat installers that are certified under MCS and that specialise in a particular type of technology.

➤ **Payments**

Having successfully completed the RHI application, payments will be received by homeowners on a quarterly basis. For domestic homes these payments are fixed and calculated from the specific heating requirements of the house. The table below outlines the estimated cost of installation for each technology, and the predicted RHI payback after 7 years. It is worth noting that the RHI does not include maintenance costs, instead it intends to repay the capital costs of installation.

Alastair also made clear that there have been slight reductions in tariff rates associated with certain technologies, particularly with biomass. Although these depressions in rates have been slight, it is important to keep them in mind. Finally it is also important to consider the fact that as the development and popularity of renewable heating increase, tariffs will gradually reduce.

Technology	Installation Cost	Fuel Costs (py)	RHI Income (py)	RHI Income (7 years)
Biomass	£5,000-£20,000	£1,175	£1,976	£13,835
Air Source HP	£5,000-£14,000	£864	£788	£5,516
Ground Source HP	£10,000-£20,000	£432	£2,707	£18,949
Solar Thermal	£3,000-£5,000	-	£346	£2,419

## **The RHI application process**

**Michael Johns-Turner, Merlin Housing**



Michael began the presentation by introducing Merlin Housing Society and the work they conduct in South Gloucestershire. Merlin Housing's overall vision is: "Quality Homes, excellent services and strong communities, with customers at the heart of all that they do".

Within South Gloucestershire Merlin Housing has 300 'Off-Gas' properties that they intend to update with renewable heating technology. Following the creation of their Affordable Warmth Strategy in 2009, Merlin have already improved 23 properties with a range of renewable heating technologies and they aim to improve a further 38 by the end of March 2015. A range of funding schemes has emerged since the start of this strategy, and the domestic RHI represents another potential funding opportunity available to Merlin.

Michael then went on to explain the links between the domestic RHI criteria and the MCS. As mentioned briefly in Alastair's presentation, all renewable technologies have to be accredited under the MCS in order to qualify for the RHI. However Michael made the point that the opposite is not true, as a number of accredited MCS technologies are not on the list for RHI.

The application process for the RHI is conducted online. Michael outlined some issues and complications he had encountered with the process, having gained substantial experience in completing RHI applications for Merlin properties. The following list outlines some of these issues mentioned:

- You are unable to save your process during the RHI application. If you lose connection or stop mid application, you have to start it all over again.
- Claiming payments for RHI can be problematic.
- There are stringent rules for proving your identity in order to receive RHI.
- Lack of clear information regarding the exact quarterly payment amounts homeowners are expected to receive.
- In order to receive RHI the property has to be occupied; however there can be difficulty in proving this occupancy.

Michael finished his presentation by relating that Merlin tenants that have had renewable heat installations installed are happy with their systems; especially as many are now saving hundreds of pounds per year in fuel bills.

## **Q & A Session**

Attendees of the forum were then provided with an opportunity to ask both presenters any questions they might have.

**Q:** What are the regulations for claiming RHI for second homes?

**A:** If applying for RHI in a second home then in order to receive payments a metre has to be installed. Payments are then based exclusively on the energy use recorded from this metre.

The DECC have been allocated funds to pay for heat metres, so you can apply to receive a free metre. This is applicable for all houses under RHI, even those homes that are constantly occupied where payments are not based on measured energy use. However these funds DECC possess are limited so they might not be able to provide free metres for too much longer.

**Q:** Is it clear to the public what technologies qualify for RHI?

**A:** The technical details of what technologies qualify for RHI are accessible to the public, however these details are extremely specific and not exactly user friendly at present. There are some technologies that have proven to be efficient and useful in producing heat, but as of yet do not qualify for RHI e.g. Thermodynamic panels.

**Q:** What feedback has Merlin received from the occupants of the homes where renewable heating has been installed?

**A:** In general the response from tenants has been very positive, and in the majority of cases people have been pleasantly surprised with the amount of money saved on energy bills. For example, in the case of houses where previous heating systems have been replaced with air source heat pumps, there has been reported savings of around £40 per week for those who previously relied on oil, and £80 pounds a week for houses run on gas.

On average it costs around £860 per year to run a house on oil, whereas the annual cost of running an air source heat pump is £560 per year. These figures relate to homes where the current radiator heating system has been modified, as opposed to those with under floor heating, where the annual saving would probably be greater.

## **Workshop Session**

At this point the attendees of the workshop were split into three groups, each group was asked to come up responses for the same two questions. These questions and the combined responses of the three groups are provided below:

### **1. What is the role of local groups in 'making renewable heat happen in your area?'**

- Local groups need to try and get people interested. It was suggested that a local person in a community should show people the process of switching to renewable heat in practical terms.
- Organise 'open homes' where public can see the technology in use and speak to other homeowners who are benefitting from the RHI.
- Local groups in some way explain the RHI and what's involved in a non-technical way that won't overwhelm people. It might be more beneficial to focus more on the potential money that people could save when reaching out to communities.

- Perhaps a system could be set up where community groups get a fee for referrals of renewable heating.
- Create a central bank of resources relating to renewable heating that local groups could use in their community.
- Local groups should lead by example, such as by using renewable heating in community buildings e.g. Churches.

## **2. How to get the renewable heat message out there / effective marketing**

- Incorporate the concept of renewable heat in all energy efficiency agendas.
- Use successful case studies as examples when promoting renewable heat.
- Look at techniques other organisations are using to disseminate information to public e.g. Loft insulation advice British Gas are currently giving out.
- Use social media as tools for spreading the message e.g. Facebook, Twitter etc.
- Link in the promotion of renewable heat with Bristol as the 'Green Capital'.
- Use Merlin properties as examples; publish these examples in 'Merlin Matters'.
- Place information about the RHI within South Gloucestershire News.
- Set up a local 'energy helpline'.

## **Conclusion**

- Renewable heating is an exciting concept that has the potential to greatly reduce people's energy bills whilst also providing a sustainable and efficient energy source.
- There is significant scope to greatly increase the use of renewable heating within homes in South Gloucestershire, and a lot of people could greatly benefit from the RHI and reduce their energy bills in the long term.
- The application process for RHI is currently more complicated than it needs to be. Information relating to renewable heat - and the criteria required to qualify for RHI - needs to be disseminated to a wider audience in a simplified manner so that the public can better understand the benefits of the scheme.

## **Forum Meeting Attendees**

<b>Name</b>	<b>Organisation</b>
Andy O'Brien	Bristol Energy Cooperative
Calum Allan	South Glos Council
Cllr Robert Griffin	South Glos Council
Claire Young	South Glos Council
Dan Jones	South Glos Council
Cllr Dave Hockey	South Glos Council
David Llewellyn	Merlin Housing Society
David Mathews	Favw Hadgbs
Debby Paice	South Glos Council
Hazel Bleaken	Hawkesbury P.C
Ian Boulton	South Glos Council

John Alexander	
Karen Wilkinson	Marshfield Energy Project
Lesley Lees	
Lynn Edwards	Energy Assessor
Matt Stringer	Thornbury Town Council
Meryl White	
Neil Williams	Resident
Nicholas Barnard	Sustainable Thornbury
Pat Hockey	South Gos Council
Pauline Wilson	AWT
Richard Wilson	AWT
Rodney Stone	Kingswood Heritage Museum
Stephen Lees	
Cllr Sue Hope	South Gos Council
Tony Lewis	Green Air Heat Pumps

## Apologies

<b>Name</b>	<b>Organisation</b>
Alan Stewart	South Gos Council
Angela Hocking	Downend and Bromely Heath Parish Council
Anne Fisher	
Di Aldrich	
Ian Brooks	
Jackie Pooley	Strategic Housing Enabling Team
James Bond	
John Brooks	
Marcus Fry	Alveston Parish Council
Pat Cotterell	
Pat Rooney	South Gos Council
Sharon Petela	Bradley Stoke Town Council
Steve Aston	
Val Harding	Sustainable Thornbury
Veronica Soar	Bitton Parish Council