#### Jargon busting!

They're only words... but what do they mean!?

#### Retrofit

Retrofitting is the act of installing new or modified parts in something that has already been built. When we talk about retrofitting this could include changing the heating system, adding insulation or replacing windows and doors.

#### **EPC**

EPC stands for Energy Performance Certificate all new homes and homes that are sold must have one of these. They give your home an energy efficiency rating from A to G with A being the most efficient. You'll see similar ratings on things like new fridge freezers and other electrical good too.

#### SAP rating

SAP ratings are the same as EPC ratings but instead of using letters, the ratings are expressed as numbers. This term is generally used in the industry, but it is essentially another term for EPC.

### Did you know....



Our Rivers Meet office is rated BREEAM Excellent making it one of the most environmentally friendly commercial buildings in the country.



The wrapper on our Tenant Topics magazine is completely biodegradable and can be used to line your food caddy!



Our colleague Environmental Group sourced completely compostable teabags for colleagues – no plastic – how refreshing!



Two Rivers Housing produces more than 10,000 tonnes of carbon every year.



Two Rivers Housing is ranked thirteenth in Housing Digitals UK's Most Sustainable Housing Providers.

#### How to find out more...

For more information on the project, including a video about the project, visit our website www.tworivershousing.org.uk.



# Our journey to Carbon Zero

Thank you for being part of our journey to Carbon Zero.

We've put this newsletter together to update you on the work that we are currently doing and what is coming up.

As always, if you have any questions you can get in touch with our team by emailing zero.carbon@2rh.org.uk or calling 0800 316 0897.



### Have you met Sam?

Hopefully most of you will have met Sam and you will be seeing more of him in and around the estate over the coming weeks!

Sam is our Energy Project Manager and he is working with our in-house team and specialist contractors to make sure the project runs smoothly.

He has worked for Two Rivers Housing since 2016, when he joined us as a graduate surveyor.

In his previous role, you may have seen him in and around our properties undertaking survey work such as inspecting fire doors and completing Energy Performance Certificates.

If you have any questions, feel free to stop him and have a chat on site or you can email him on zero.carbon@2rh.org.uk.

## Why are we working towards Carbon Zero?

In June 2019, Prime Minister Theresa May made a commitment to make the UK carbon neutral by 2050. This pledge was written into law later that month and made the UK the first major economy to pass laws to end its contribution to global warming.

At Two Rivers Housing we've always been mindful of the impact we have on our environment and, over the years have invested in our homes to improve their energy performance, but in order to reach our ambition to reach Carbon Zero we need to do more.

In 2019, we undertook a Carbon Assessment that showed us which parts of our organisation produce the most carbon emissions. We've used this to create an action plan on how we can reduce our overall carbon emissions, produce an Environmental Strategy and a road map to ensure the new homes we build are Carbon Zero ready.

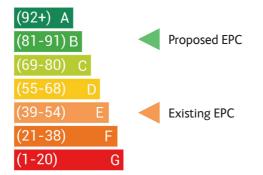
But we know that 90% of the carbon our organisation produces is created by our existing homes, which is why this pilot project is so important. It will provide valuable information on how our older properties are currently performing and help us understand the best way to improve them, as well as aim to reduce your energy bills.

By taking part in this project you are helping us create a long-term improvement plan for all of our homes and help thousands of families across the Forest of Dean to save money too!

## How does your home currently perform?

We have assessed the energy performance of the homes on the estate and the currently have an Energy Performance Certificate rating of Band E. When the work has been completed, we expect the rating to improve to a Band B which is a significant improvement.

We also expect the total carbon emissions produced by your home to reduce by around 45% when the work is complete. The properties involved in the pilot project currently produce about 87 tonnes of carbon every year, by completing the work we'll be saving more than 39 tonnes of carbon every year. This is a key step in helping Two Rivers Housing reach net-zero carbon by 2050.



## What we've been doing over the last few weeks

We've actually been planning and working on this project for quite a few months already. Before we contacted you, we were busy working behind the scenes to plan and scope out the project including selecting the properties, arranging funding and identifying key partners to help us deliver and manage the works.

This work is continuing in the background, but we've also taken some big steps forward on our journey. Over the last few weeks, we've been undertaking survey work at your home, looking at thermal imaging, air tightness and the fabric of the building.

All this information has been shared with our specialist architects, who are now using this to recreate plans of your home and produce designs that will make it as energy efficient as possible. Once we have these, we will share them with you and talk through what work we need to do at your home.

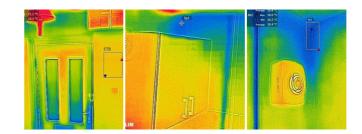
We hope to be in a position to start this work in September, but we'll keep you updated on our progress.

# What a thermographic survey reveals about your home

One of the surveys we have recently undertaken in some of the homes on the estate is called a thermographic survey. These surveys use infrared cameras to take images that show differences in surface temperature across the building. These images help to quickly identify problem areas throughout the building.

Thermographic surveys can help us identify a number of potential issues including, air leakage, missing or damaged insulation, problems with heating systems and problems with doors and windows. They also give a great visualisation of the difference the retrofit work has made once it has been complete.

We took images of the inside of the homes involved in the project – the cold spots show up as blue and the hot spots appear as red patches. These images help the design team understand what work needs to be undertaken as part of the retrofit.



# Understanding the technology – smart thermostats

A SMART thermostat acts like a regular thermostat in that in controls the heating and hot water in your home, however it has added features that can collect and share information with you and us to help us identify potential issues such as damp before they happen.

We are working with a company called Switchee to provide smart thermostats for the homes involved in our pilot project.

Initially, your Switchee thermostat will simply monitor your homes energy performance including the temperature, humidity, light levels, motion, and air pressure. This will be used to help us understand how the changes we make improve the energy efficiency of your home.

Once the work is complete, your Switchee will be used to control the heating and hot water in your home.

To find out more, visit the Switchee website: www.switchee.co

## **Project Timeline**

The pilot project is quite complex and will involve lots of different organisations and tradesman. The timeline below provides an overview of the stages of the project and shows you where we are on our journey:

