

If we are to meet our climate targets then the nation's housing stock needs to be made more energy efficient. It's a huge and complex task but one Ayrshire company is rising to the challenge, discovers **Andrew Collier**

**I**n the battle against climate change, many of our buildings have become our enemies rather than our friends. Some 23 per cent of carbon emissions in the UK come from the built environment, making our properties a major contributor to environmental change.

Much of the problem revolves around the fact that buildings are not particularly energy efficient. There are 29 million homes across the country and 60 per cent of these have an energy performance certificate (EPC) rating of D or worse. That adds up to a lot of CO2 going into the atmosphere.

The good news, though, is that these buildings can be made more efficient. If we do so, we not only boost the green agenda: we also reduce bills, which has a positive effect on fuel poverty.

This reduction is hugely important, as according to official figures 10 per cent of UK households meet this poverty definition, which means they spend more than a tenth of their income on fuel. In Scotland, this rises to a staggering 24 per cent.

Decarbonising and improving our built environment is, therefore, an imperative. The work is being carried out by companies such as Irvine-based Green Home Systems.

The business was founded in 2014 with the goal of creating what it terms warm, healthy and happy homes, and it has expanded rapidly since then to become a leading energy efficiency provider.

Green Home Systems largely operates under the ECO (Energy Company Obligation) scheme, a UK government initiative launched in 2013 to help reduce carbon emissions and to reduce fuel poverty.

"It places an obligation on the big utility companies such as SSE and ScottishPower to set aside money in order to make the UK housing stock more efficient", explains Alastair Macphie, Green Home Systems' Managing Director.

"That means that the cost of the work carried out does not come out of the householders' own pockets. It can mean installing loft and underfloor insulation, or getting rid of old and inefficient gas boilers and putting in modern ones."

The ECO scheme has been judged a



## Holistic approach to green efficiency drive

success and is set to run until 2026 at least. Green Home Systems has used it to improve some 10,000 homes across Scotland so far. The company calculates that in total, it has saved some 500,000 tonnes of carbon entering the atmosphere.

As the UK moves forward towards its goal of achieving net zero carbon by 2050 – in Scotland the target is more ambitious, with a date of 2045 – the demand for making homes and buildings more energy efficient will

only increase. Green Home Systems is growing in response to this. "The company was started by two brothers, Peter and Steven Easton, with a £1000 business start up grant from South Ayrshire Council", Alastair Macphie explains.

"By last year, turnover had risen to about £4.5 million, and they both decided they wanted to grow the company. So they sold part of it to an Edinburgh-based private equity firm called Circularity Capital that wants to

■ **Homes in the UK are not energy efficient, with up to 60% having a EPC rating, pictured, of D or worse**

invest in sustainable ventures.

"We now want to increase our size - our target is to grow fourfold from where we are over the next two or three years. We have already expanded the management team - I joined a year ago - and our plans are pretty ambitious."

The industry has changed the way it operates in recent years and this switch will be key to its future growth. "It is now moving to a whole house retrofit approach", Mr Macphie explains. "In the past, the work has generally

involved individual measures.

"Five or 10 years ago, you might have put loft insulation into a house, or a more efficient gas boiler. Now we are looking at the home as a whole and considering what we can do to make it more energy efficient."

"Our strategy now is to position ourselves as a one stop shop for all domestic energy efficiency measures. We won't just provide insulation, but also every other measure that reduces a home's carbon output. That can be from solar panels through to heat pumps and electric vehicle charging points."

Green Home Systems also aims to expand its geographical reach, moving beyond its current base in the west of Scotland and into other areas of the country. In addition it is working with a partner business in the Midlands with the aim of setting up a local operation there and is looking at further expansion across the UK.

In yet another move, it is developing its own skills academy, working with Edinburgh College to train its

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employees in the skills that will be needed in the future.

This will not only help its competitive edge: the company also believes it has a moral obligation to look after its people and to give them the opportunity to grow as the company itself expands.

Alastair Macphie sees Green Home Systems as very much being part of the global battle against climate change and for global sustainability. "We have a lot of work to do in a short time period", he says.

"Hopefully, the forthcoming United Nations COP26 conference will be the focal point of increased effort. It's a truly exciting time for Glasgow and Scotland to be hosting an event of such immediate global significance."

He continues: "The targets that are being set are not going to be met if firms like ours aren't doing what we are doing. That's also why it's so important that our employees have the right skills."

"We will play our part by striving to continue on our growth path and by doing the things that are really important - reducing carbon emissions and at the same time cutting fuel poverty."

## Skills academy trains next generation

IMPROVING homes is a technical and highly skilled business. If you don't have the right people, you simply can't carry out the work.

Green Home Systems has recognised this and taken steps to ensure that the right employees with the right capabilities are in place. The skills academy it has set up in conjunction with Edinburgh College is offering in-house training to ensure that its staff have the right qualifications needed to do the job.

This is particularly important as the sector becomes ever more heavily regulated. For instance, a recent move to a new standard for upgrading homes known as PAS2019 means that all insulation measures must now be installed by a qualified technician.

"It's quite right that it's now regulated as it means that the people carrying out the work have to do the job properly", says Alastair Macphie. "However, given the government's targets, that is going to lead to a skills shortage in the industry."

"Put simply, there is no point in us having growth plans if we are not able to fulfil them. That's why we launched this skills academy."

Training takes place in-house with students taking both SVQ and NVQ qualifications. The subjects covered are not just technical ones: modern apprenticeships in business administration are being offered to office-based staff.



"There is funding available for young people coming out of school and just starting off in their working careers, but also for people looking for a change and wanting to retrain."

The academy, he says, is an important part of the company's business plan as it will help ensure that it has the necessary capacity.

"It will provide an exciting and secure

■ **Green Homes Systems has set up a skills academy with Edinburgh College to ensure they can call upon a high calibre of skilled employees**

career for a lot of people.

"Looking after our staff is very important to us. It may be a cliché, but employees are the most important asset of any organisation."

"We are a living wage employer and are conscious of our obligation to treat our employees well. We want to allow them to reach their full potential and to grow as we grow."

## Powering on with the revolution in home energy

MOST people currently haven't a clue what heat pumps are or what they do. However, that is set to change dramatically in the course of the next few years.

Gas boilers are to be phased out in homes over this decade and heat pumps are currently the most suitable replacement. There is also a demand for them to be retrofitted.

The UK government target is to install some 600,000 pumps every year by 2028, a 20-fold increase on the current figure, if installed alongside the correct installation measures in another example of the whole house approach, they can optimise a home's emissions and cost savings.

In addition, huge growth is also expected in the purchase and use of electric vehicles (EVs) in the coming years. It is expected that there could be as many as 36 million of these on the roads in the UK by 2040.

These will all obviously have to be



■ **EV Home charging point**

powered, and Green Home Systems sees the installation of home charging points as being another major area of opportunity, driving significant company growth.

At present, there is limited grant funding available for some of these newer energy efficiency measures, but the company says that there is an expectation they will be covered by existing schemes or by new incentives.

"A significant number of households will also want to upgrade to these systems from a cost saving or environmental concern perspective", says Alastair Macphie.

"It is our intention to be at the forefront of this change and ultimately we would like Green Home Systems to be the go-to name for the installation of these systems, whether they be wholly or partially grant funded or installed on a commercial basis."

# 100

## DAYS OF HOPE

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