

# HOME IS WHERE THE HEAT IS

## PROGRESS REPORT

—  
October 2022



THE SUSTAINABLE HOMES AND BUILDINGS COALITION



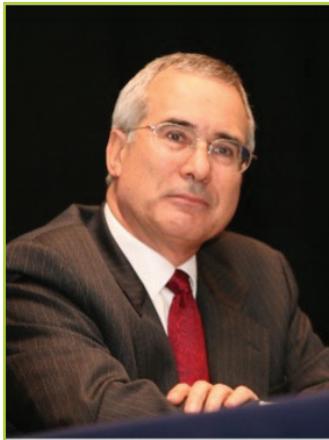
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## ABOUT THE SUSTAINABLE HOMES AND BUILDINGS COALITION

In July 2021, NatWest, Worcester Bosch and British Gas, with support from Citizen's Advice, formed the Sustainable Homes and Buildings Coalition. The Coalition's core purpose is to influence policy makers and stakeholders to change their approach to energy efficiency. Instead of top-down governmental programmes, strategies and schemes, the Coalition has endeavoured to show that by putting customers at the heart of the process, and through empowerment and guidance, real progress in decarbonising the UK's built environment can be made.

# FOREWORD



BY LORD  
**NICHOLAS STERN**

When we published the Stern Review 16 years ago around the economics of climate change, the topic was seen as academic or marginal by most policy makers. The term 'energy trilemma' (the challenges of combining affordability, reliability and sustainability) had not been coined, and energy was cheap and taken for granted (the price of oil had been between \$40 and \$60 per barrel for most of the preceding two decades).

Back then, we were in the vanguard of those insisting energy efficiency was a key component of decarbonisation, affordability and energy security. But we did not know that a decade and a half later, we would come to see interventions in attics and front rooms from Dundee to Dorset as one of our most potent weapons against global warming, dictators and unsustainable bills. And we did not know that we would have made little progress, or indeed gone backwards, on incentives to make change happen.

The main difference between then and now, is the extent to which the public and businesses grasp and support the notion of a national effort to deliver energy efficiency to combat rising energy bills from global energy price spikes. What has not changed is the extent to which policy makers have gone beyond warm words to deliver on the required scale. But I sense this is about to change, primarily out of necessity, but also out of a new activism from the business community beyond the energy sector to make it a reality.

"To date, progress has been too slow, and it is now costing the nation a fortune, as well as holding back our drive to net-zero."



I have followed with great interest the work of the Sustainable Homes and Buildings Coalition since the launch of its first report, 'Home is where the Heat is', and am delighted to have been given the opportunity to contribute to this Progress Report. As someone who has dedicated much of his life to dealing with climate change and delivering an economy that works for everyone, I am a convinced advocate of the unique opportunity that energy efficiency presents, especially in these very concerning times where millions of our fellow citizens are struggling to pay for a basic need – energy. It takes us forward on all three of the dimensions of the so-called trilemma.

The Coalition has done critical things uniquely well and I salute them for it. It has effectively contributed to establishing energy efficiency at the top of the political agenda and has argued for a customer-centric approach to its national delivery. As a leading group of UK businesses and organisations, the Coalition is tackling head on what has been the Cinderella of climate policy. We must understand and act on the fact that the UK's built environment contributes 15% of our carbon emissions. To date, progress has been too slow, and it is now costing the nation a fortune, as well as holding back our drive to net-zero.

The recently published Progress Report by the Committee on Climate Change, highlights the very real challenge the UK faces, namely that our climate ambitions are world leading, but our ability to deliver net-zero in the timeframe we have set ourselves, is off course. The report rightly states that the government's strategy has many holes which "must be plugged" and one of those areas is the deployment of energy efficient measures in our homes. It is crucial that energy efficiency is no longer viewed simply through the lens of climate and carbon but also through the prism of cost, comfort, and security.

At a time when the cost of living continues to rise, driven largely by our dependency on fossil fuels and the resulting price rises from global fragility in supply, with a major knock-on impact on inflation, the UK needs to move strongly away from fossil fuels in the medium and long term, and operationalise renewable sources of energy generation. However, in the near term, the UK has a duty to embrace energy efficiency as a means to use the energy we currently depend on more efficiently, and critically save customers money on their bills.

"By the time the next iteration of this report comes out, I hope energy efficiency will have moved from pilot to profitable, from difficult to desirable and from piecemeal to prominent."

That is why I have been a supporter of the work NatWest, Worcester Bosch, British Gas and Citizens Advice have undertaken as the Sustainable Homes and Buildings Coalition, because from the outset they recognised that energy efficiency is a key part of the jigsaw of the UK reaching net-zero and reducing the cost of energy bills for people across the country. And to have lower energy demand is to be more secure. They have also been able to deploy their collective expertise and customer insights to work together to find a new and effective approach, namely putting the customers at the heart of the process. Their focus on delivering customer-centric propositions to energy efficiency, and their articulation of energy-saving solutions in a language people understand, are empowering consumers to take action. Their initiatives are demonstrating that energy efficiency is no longer a luxury for those that can afford it.

The insights shared in this report are spot on, and a must-read for policy makers, even if it makes for uncomfortable reading, especially around the customer experience dimension of the retrofit process. It is becoming increasingly obvious that energy efficiency needs to be thought of, and procured, as a service, rather than a 'builder's intervention'. It is also clear to me that energy suppliers cannot be the only ones relied on to deliver this homes upgrade programme, despite being a key cog in the process.

As the UK government's electoral success will largely depend on how it deals with the current energy and cost-of-living crisis, this administration would do well to set in motion the policy agenda required to progress the key regulatory ideas laid out in this report. Recommendations like the stamp duty rebate, the energy efficiency communications campaign, the help to save lending scheme are very sensible, and already benefit from strong support in industry and consumer groups.

By the time the next iteration of this report comes out, I hope energy efficiency will have moved from pilot to profitable, from difficult to desirable and from piecemeal to prominent. I will certainly be doing everything I can to continue supporting the Coalition in this endeavour.



# EXECUTIVE SUMMARY



There has never been a year in history with so many reports written on energy efficiency. With estimates that the UK needs to retrofit more than one home every minute until 2050 to meet its net zero carbon targets, and not enough progress to show for a year on from the release of the Heat and Buildings Strategy, it is clear that energy efficiency is a major policy pressure point.

Those who follow the work of the Sustainable Homes and Buildings Coalition will know that this Progress Report is the second in a series of three which we have committed to publish. Building on the first iteration, published in October 2021, which laid out six customer-centric pathways to energy efficient homes, this report honestly appraises people's experiences of the retrofit pilots funded by the Coalition.

## HOME IS WHERE THE HEAT IS

Nine households, from Tyne and Wear to Pontypool, who the Coalition are helping to make their properties energy efficient, at no cost to them, in exchange for them sharing their experience of the five phases of the retrofit journey from customer involvement to outcomes.

This report focuses on the first three phases of the pilots – customer involvement, quoting process and installer selection. We wanted to provide colour on what these journeys look and feel like, moving from academic to real-life experiences: writing about what we are doing, so we can all learn from it and not shying away from our learnings in the process.

Some undeniable facts are clearly laid out – customer awareness of efficiency remains low; their journeys to greener homes are clunky; funding options are often too opaque, and the supply chain is ill-equipped and under-staffed to meet projected demand. Nonetheless, the appetite from industry and the public is here.

Our report presents important data on the evolution of public sentiment towards energy efficiency, leveraging NatWest's quarterly survey, the Greener Homes Attitude Tracker, to evidence the fact that public support for energy efficiency is strong and growing. Nearly 70% of homeowners now plan to make energy efficiency improvements to their property this decade.

It also summarises the breadth of engagement undertaken by the Coalition – reaching out to over 1,000 customers this year, engaging 200 MPs and 10 councils as part of our outreach, and running eight events.

## POLICIES TO MOVE THE DIAL

The report repeats our five policy asks – mostly borne out of this outreach and engagement up and down the country. We are calling for:

- 1** A public information campaign to educate the public on energy saving measures
- 2** Long-term investment signals to the market, including through local area energy planning
- 3** EPC reform to ensure all homes sold by 2033 are rated EPC C and above, while digitising and regularly updating EPCs to make them more useful
- 4** The launch of a 'Help for Energy Efficiency Scheme' allowing banks to provide low interest loans to households to upgrade their properties
- 5** The launch of an 'Energy Saving Stamp Duty Rebate' which would leverage the trigger point of a house sale for the new owner to have a two-year window to invest in energy efficiency and be able to claim it back against its stamp duty

Finally, we focus attention on the challenges around the supply chain, especially SMEs, and the urgent need to support this ecosystem to scale up to meet the size of the challenge that is a national retrofit project.

Throughout it, we also tried to convey our shared belief that by the time the next iteration of the 'Home is where the Heat is' series comes out, we will have moved energy efficiency from pilot to profitable, from difficult to desirable and from piecemeal to prominent.

In the meantime, we hope you will find this report useful, engage with the Coalition and share with us your learnings and experience of the retrofit journey.

## STEPPING UP TO SUPPORT CUSTOMERS

Stepping up to support customers is going to be key if we are serious on meeting the size of the challenge, which the Committee on Climate Change expects to require £360 billion of investment to retrofit all UK homes and buildings. But this is also a massive growth opportunity for SMEs, with NatWest Group's Springboard to Sustainability report anticipating a £160 billion opportunity for SMEs in addressing climate change.

This is a national priority we must get right. It was the Coalition's ambition when we were formed and remains very much alive today. As we continue to accompany the nine households through the journey, we recognise the need to do more at a national level. This is why, to coincide with this report, we are unveiling a series of commitments that will make a difference.

**NatWest Group** has pledged £100 billion to drive climate action and decarbonisation before the end of 2025.



By the end of the year, NatWest expects to launch its Home Energy Plan proposition which will allow customers to understand how energy efficient their home is and give them a personalised plan showing what changes they could make to improve it, supporting them to reduce their energy usage and save money on their bills.

**Worcester Bosch** will continue to invest heavily into the research and launch of low and zero carbon heating products that will enable the 2050 target to be met. Working on the deployment of heat pumps, hydrogen-ready boilers and hybrid systems, Worcester Bosch will also continue to drive multiple trials across the country to help showcase the safety of hydrogen boilers and support the wider understanding and application of hybrid systems (boiler and heat pump) in the UK. Alongside this, Worcester Bosch have invested in their training facility to adapt it for low or zero carbon technologies as well as traditional boiler technologies where they can train up to 18,000 installers annually to prepare them for the future heating landscape.



From 19<sup>th</sup> October, **British Gas** will be offering heat pump installations for £4,999 to help more of its customers to lower their emissions. Heat Pumps will play an essential part in the UK achieving its Net Zero goals by 2050 and British Gas has been leading the market with over 600 heat pumps installed to date and completing the first install to benefit from the government's boiler upgrade scheme.



British Gas started installations in the South West before rolling out installs nationwide. There are plans to incorporate Hive Active Heating controls into the proposition so that customers can manage their heating remotely and improve their energy efficiency further. The company is also installing air source heat pumps into social housing and is aiming to install up to 1,200 in the next year across private and social housing.

# GROWING PUBLIC SUPPORT



LLOYD COCHRANE, HEAD OF MORTGAGES, NATWEST

## INTRODUCTION

Over the last year, barely has a week gone by without energy being on the front pages. Whether it be the impact of Russia's invasion of Ukraine on global supplies, the severe droughts and heatwaves across the world, or the historic energy price crisis that is unfolding worldwide, consumers and households have been on the frontline of this crisis. Some feared that the short-term pressures of paying bills would turn public opinion away from action on decarbonisation. Interestingly, the opposite is true.

Since May 2021, NatWest Group has been running a quarterly survey, the Greener Homes Attitude Tracker, to understand the British public's evolving attitude towards energy efficiency and unearth key findings that could inform change in policy and customer propositions in this space. Over the past 18 months, the tracker has highlighted the general public's understanding of the importance of energy efficiency and their support for further government action on this issue. The tracker continues to show strong and growing public support for energy efficiency, both in terms of insulation and renewable energy adoption, driven by cost-of-living concerns as much as climate ones.

The main trend I have noticed since becoming involved in this space is that energy efficiency has moved from being a niche for those with a real focus on carbon reduction, to a necessity for all of us looking to shield ourselves from steeply rising energy bills. Increasingly, there is recognition of the positive economic impact of energy efficient homes, with Citizens Advice unveiling that if all UK homes were EPC C certified, this would lead to over £8 billion worth of savings for consumers.

As recently laid out by National Energy Action, despite the government's Energy Price Guarantee and the Energy Bill Relief Scheme, announced in the 'mini-budget' on 23<sup>rd</sup> September, 6.7 million households are expected to be in fuel poverty from this winter. In our view, fuel poverty is nothing less than poverty. So, whilst the support from Government is vital over the next two years, we need investment to reduce the amount of energy we use to keep warm, so we can avoid paying higher bills over the long term.

On energy efficiency, we find ourselves in a unique situation where public opinion and industry's willingness to act is actually ahead of government policy. Communities, business and the third sector all advocate for more action on the energy efficiency front.

At NatWest, we want to ensure that the public's opinion is reflected in the policy framework, making energy efficiency a reality. We have done this in parallel to developing the financial products that will allow customers to spread the cost of investing in energy efficiency.

"Some feared that the short-term pressures of paying bills would turn public opinion away from action on decarbonisation. Interestingly, the opposite is true."

Below is a snapshot of what we learnt over the last year and have fed back to policy makers to shift the dial on customer-centric policy, focusing it on energy efficiency, since the publication of the Heat and Buildings Strategy in October 2021. I wanted to start with the positive and encouraging insights, before clearly laying out some of the more challenging findings.

## INSIGHTS TO CELEBRATE

### Energy efficiency is a home improvement measure

In our first survey in July 2021, we found just 15% of those surveyed were planning on making improvements to the energy efficiency of their property in the next 12 months. A year on, almost one-in-four homeowners said they plan to do so. When looking at improvements over the next decade, 68% said they planned to do so in our Q3 2022 tracker.

### From carbon to cost

The rationale for home improvements is being driven in part by the cost-of-living increases, with 52% of homeowners saying that factors such as higher energy bills, food prices and interest rates had made them more likely to implement energy efficiency measures, as of Q3 2022. Meanwhile 23% said that rising costs would make them less likely to make an intervention.

### EPCs matter

Homebuyers now consider a property's Energy Performance Certificate (EPC) as a vital part of buying a home with many stating that it was a 'very important' feature – rising from 30% in Q3 2021 to 40% in the three months to September 2022. Interestingly, when homeowners are considering which property to buy, EPC ratings are now more important than 'access to public transport'. With 60% of UK homes failing to meet an EPC C rating, this could spur pick-up for energy efficiency measures and suggests energy efficiency will be a bigger driver of house prices in the future.

### Affordability of improvements is key

A key trend we have observed is that cost remains the single biggest barrier to making energy efficiency improvements. As of September 2022, this was cited as the main barrier for 71% of homeowners not looking to make energy improvements over the next decade.

### Already doing their bit

In support of this, the survey from Q3 2022 found that almost two-thirds (61%) of households are already trying to minimise home energy use in their day-to-day habits with 44% already turning off appliances to save energy – a figure that is likely to rise further over the coming months. The tracker also highlights that 'green homes' are a key consideration for future homeowners, who are being driven to act both on cost and environmental grounds. With UK homes losing heat three times quicker than European counterparts, this is important.

### The younger the bolder

Younger homeowners are looking to act more quickly as well as more often. The data shows that a higher proportion of younger homeowners are planning to make upgrades in the next 12 months compared to older homeowners. This partly reflects 'catchup effects', with younger homeowners less likely to have features such as double or triple glazed windows, energy efficient lighting, or a smart energy meter already installed. It also suggests that a 'Generation of Action' is emerging, and that will be key in gaining greater momentum going forward.



## GROWING SUPPORT DOES NOT CURRENTLY LEAD TO ACTION

Despite encouraging developments in terms of public support and awareness of energy efficiency, across generations, geographies and living arrangements, there is no time for complacency. According to our data, more than one in five UK homeowners still have no plans to make improvements to the environmental sustainability of their homes in the next decade, and there is a challenge for those who cannot afford to make these changes.

Even amongst those eager to take action, many are put off by the effort they need to make to understand enough about their options to confidently take a decision to invest in energy efficiency.

Awareness, especially amongst more vulnerable households, is also concerningly low. Indeed, we found that only 21% of people in lowest-income households were 'a lot more likely' to undertake energy efficiency improvements in the next 12 months as a result of the rise in the cost of living. We need to make sure that support for lower-income households is in place.

Public awareness of schemes is also an issue. In their Insulation Nation report last month, Citizens Advice found that almost two-thirds of UK homeowners had not heard of the Energy Company Obligation (ECO) scheme, despite it being the principal mechanism for energy suppliers to support with energy efficiency measures.

An interesting sentiment emerging from our research and engagement with stakeholders has been around the inadequacy of government policy to secure action from interested households. In our Q2 survey, only 14% of those we polled said they were 'a lot more likely' to install or make upgrades to the energy efficiency of their main property in the next five years, as a result of the reduction in VAT of energy saving materials from 5% to zero, and nearly half (47%) stated it 'makes no difference'.

"Leaving homeowners to address this on their own will simply not work. Incentives for undertaking work, improving houses, and then the monitoring of improved performance are required. Action is needed now."

Climate Citizens report on Addressing emissions from owner-occupier homes, September 2022

Looking ahead, this is certainly something that must be tackled head on. We have laid out below a simple table which sets out the five honest facts to acknowledge before devising any future energy efficiency policy.

### HONEST FACTS

**Customer awareness is low**

**Customer journey remains clunky**

**Funding routes remain opaque**

**Supply chain is ill equipped**

**Broader policy drivers are not leveraged**

### LOGICAL ACTIONS

- Government (HMG) awareness campaign
- Deployment of digital EPCs

- HMG support on improving journey through innovation
- Clarity on steps and eligibility

- HMG support for funding schemes
- Clear unambiguous grants

- Industry standard to train to one certification
- Further investment in supply chain and trusted trades pipeline

- Stamp duty rebate for energy efficiency works
- Future Homes Standard

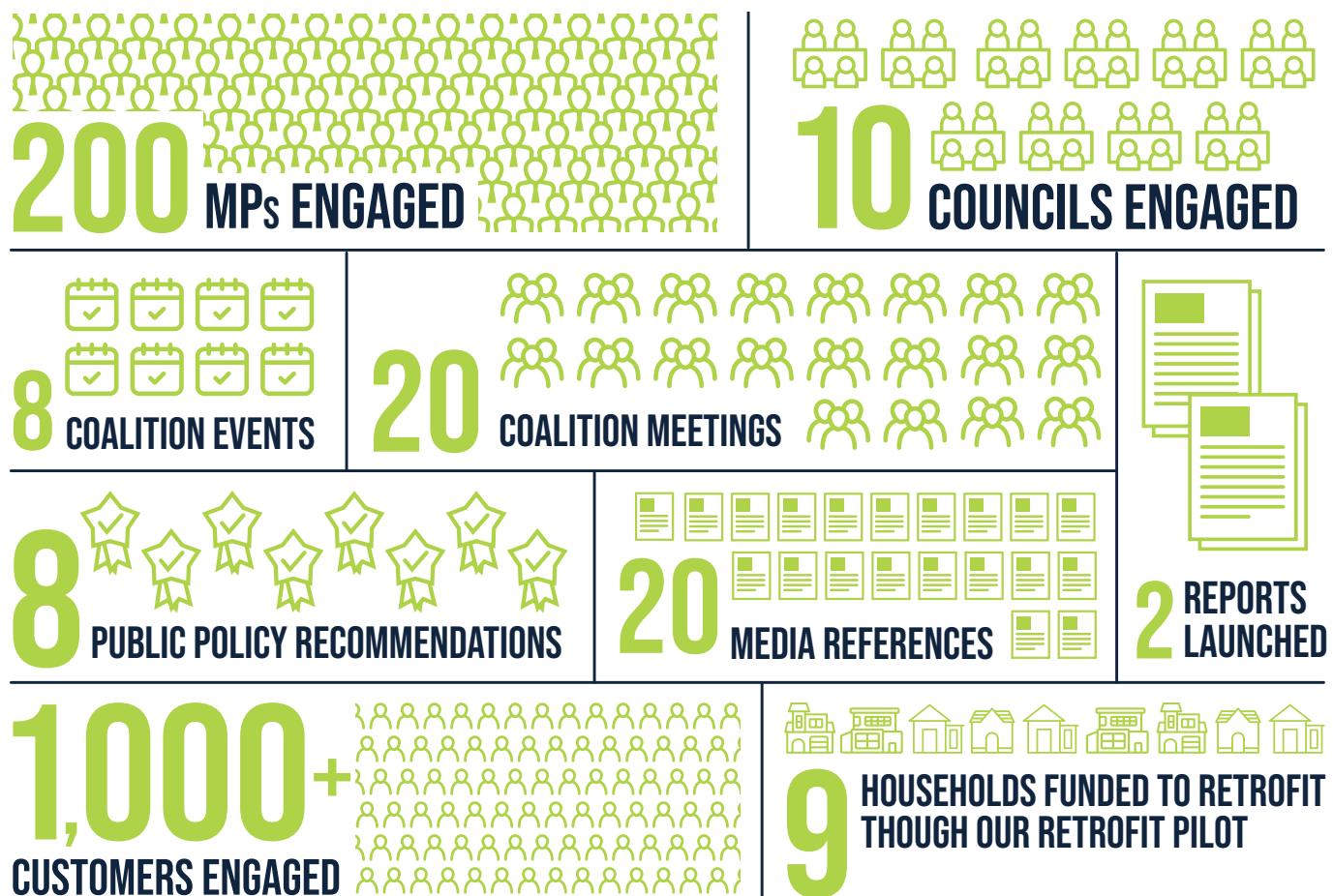


# A YEAR ON: THE SUSTAINABLE HOMES AND BUILDINGS COALITION

## ACTIVITY SNAPSHOT

When the Coalition formed in July 2021, we set out to put energy efficiency delivery at the top of the political agenda in the UK – the Heat and Buildings Strategy had been delayed again, and we felt we had a role to play to highlight the positive case for energy efficiency to all stakeholders, and the importance of devising customer-centric propositions in the policy framework and market offering.

For many of us, it was the first time we had set up a bespoke, cross-industry coalition, working hand in hand with charities and NGOs to proactively campaign for a cause that many felt had stayed too long in the ‘too difficult’ category. A year later, we are given the opportunity to look back, to celebrate some wins, reflect on lessons learnt and share highlights of this major collaborative undertaking.



From COP26 to Birmingham and Manchester to Westminster, the Coalition travelled the country to engage key stakeholders with our report, our insights and ambitions. We did a lot of listening, especially when engaging the charity sector and local government to ensure we were in a position to convey their perspectives and concerns around a national policy framework devised to make energy efficiency a reality.

As a Coalition, we fed into policymaking and engaged broadly to ensure government and Whitehall focused more on the customer activation and pulled all the levers available from taxation to supply chain incentives to help energy efficiency scale up. We are only at the beginning of this journey, but we are determined to keep going, until we have proven that energy efficiency works.

## MESSAGES TO HAMMER HOME

A year on, there are five messages that resonated:

1. Whether it be on cost or carbon grounds, energy efficiency is a 'no brainer' that we cannot afford to ignore, especially now that we have an energy supply crisis.
2. Energy efficiency is a long-term supportive household intervention with major positive impacts beyond energy costs and carbon.
3. Delivering on this potential requires a mindset shift in terms of customer centricity, supply chain support and consumer communications.
4. While government policy is vital in setting the framework, the delivery will be done through people, business and local government and they need to be at the heart of the policy.
5. Business, beyond the energy sector, sees this as the right thing to do as well as a major growth opportunity, but they cannot do this if the policy framework is wrong.

## PERSONAL REFLECTIONS

### CARL ARNTZEN, CEO WORCESTER BOSCH

"Initially, this felt daunting to me – I am an engineer at heart, not a campaigner. The idea of travelling the country, advocating for policy changes, meeting with councils and mayors and being on panels at COP26 felt slightly removed from my day job. However, I recognised the power a Coalition including a leading bank, leading charities, a leading energy supplier and Worcester Bosch would have. The Coalition operates very much like a campaigning organisation when it comes to policy. But our USP is the fact that we have been willing to practice what we preach, and this is novel. We are investing together in proving that retrofitting homes can work, despite its challenges, in the real world. We are on a journey, learning lessons on what works and what doesn't in an open and transparent manner.

Looking back, this year has been inspiring and I am proud of what we have achieved as a collective. When Lord Deben, Chair of the Climate Change Committee, agreed to launch our inaugural report on 21<sup>st</sup> October 2021, I felt we were on to something. As a panellist for this event, it was fantastic to talk to an audience of nearly 200 people including MPs, peers and industry leaders from across the political and business spectrum about home heating, energy efficiency and what implementing these policies could achieve for the UK's drive towards net-zero. Our first report really set out to place the customer at the heart of the energy efficiency process, and categorised homes based on a set of criteria, listing what type



of improvements would make sense. Our different customer pathways are giving us a credible platform to engage far and wide. We want customers to visualise what options are available and what benefit they could bring to each homeowner.

Another highlight for me was our presence at COP26. To be part of the only energy efficiency panel, in the blue zone with Andrew Griffith MP, Simon Virley, Head of Energy and Natural Resources at KPMG, and senior leaders of the Coalition was a real privilege. The discussion at the Green Horizons Summit which convened a week later with Glasgow City Council was also a great way to continue engaging city leaders about their role in driving this agenda.

My final reflection is that as well as being a vital tool in dealing with the cost-of-living crisis, energy efficiency must be seen as a powerful means to decarbonise energy usage in the home. To support this goal, I am convinced of the need to reform the calculation method of EPCs so they reflect the carbon reduction potential of improvements. This is a small change with massive potential – let's not shy away from making it happen."



## CHRIS O'SHEA, CEO CENTRICA

"The work and ambition of the Coalition has taken on greater importance and urgency in 2022 as we navigate the cost of living and energy price crisis. The Coalition has refocussed to provide a forum for businesses and stakeholders to come together to give policy makers clear advice on the mechanisms needed to ensure we can decarbonise heat in homes and achieve net zero by 2050.

A key highlight of mine was our gathering in Parliament on 16<sup>th</sup> March, which brought together industry experts and Parliamentarians. This included representatives from Energy UK, Barratts and Shelter, alongside Lord Best, and MPs Selaine Saxby and Barry Gardiner. Amid the cost-of-living crisis, and global economic uncertainties, there was a clear consensus for action and a renewed approach to implementing energy efficiency policies from both policy makers and industry alike.



House of Lords Dinner with Parliamentarians, March 2022

Following this dinner, I was pleased to put my name to a letter to the former Secretary of State for Business Energy and Industrial Strategy which highlighted how energy efficiency is a key tool in the armoury for helping people with the rising cost of energy and called on the Government to adopt the policies advocated for in this report.

This year, we convened private roundtables with the Mayor of Greater Manchester Andy Burnham and West Midlands Mayor Andy Street where we discussed the blockers to net zero. Our discussions focused on the importance of taking a customer centric approach and enabling private businesses to step into the process. It was evident from these discussions that we need a 'social housing first' approach to make the retrofit programmes a socially just and effective programme. Additionally, we need to ensure that we have consumer buy-in for decarbonising their homes and can offer multiple options to consumers, accepting that there is not one solution that fits all: hydrogen, heat networks and electrification will all be needed. I very much look forward to using this platform and the outcomes of the retrofit pilots to secure support from Government to truly scale this national effort."



Roundtable with GMCA Mayor Andy Burnham, June 2022

## POLITICAL PARTY CONFERENCES

The Coalition was present at Labour and Conservative party conferences this year, holding and contributing to a number of panel discussions on the topic of energy efficiency. In Liverpool, James Close, NatWest's Head of Climate Change joined a discussion panel entitled 'Green Finance for Green Homes: How to make households more energy efficient' with Mike Amesbury MP; Dan Norris, West of England Metro Mayor; Polly Billington UK100 Director and James Kirkup, Director of the Social Market Foundation who hosted the event. In Birmingham, ConservativeHome hosted David Lindberg the CEO of NatWest Retail alongside BEIS Minister Lord Callanan and Adam Scorer, the CEO of National Energy Action and friend of the Coalition.

Energy efficiency has become a key area of focus and interest for parties and members. As well as bringing to the fore the importance of customer centric solutions, Coalition representatives articulated the need to improve the means to turn interest into action, including by driving demand through improving education and understanding of energy efficiency and the benefits. Increasingly, policy makers recognise the size of this market, estimated at around £350 billion nationally and are receptive to ideas that stimulate demand and support the supply chain.



Conservative Party Conference Panel with BEIS Minister Lord Callanan, October 2022

# PEOPLE FOCUS: RETROFIT JOURNEY

## DELIVERING A FULLY FUNDED RETROFIT PILOT

After the launch of the report 'Home is where the Heat is', the Coalition decided to enact what it recommended and retrofit a number of homes across the country. We invited NatWest mortgage customers to experience a fully funded retrofit of their property, inviting them to share their experience of the journey to better inform policy makers and the supply chain of what worked, and what did not.

After a thorough selection process, and extensive communications with customers regarding the work required, the disruption and the options, nine homeowners agreed to undertake this journey. The project began in early April with Quidos, our selected

retrofit expert, visiting customers across the country, examining their homes and presenting what options existed to upgrade their homes to EPC C and above.

The Coalition collaboratively devised a five-step journey for the retrofit pilot. Part of the ambition was to find willing customers who owned their home, had a mortgage with NatWest, and were British Gas customers. This set of filters whittled down the number of prospective beneficiaries to under a thousand properties. This report focuses on the first three phases of the process and will be followed in due course by another report reviewing the installation process and the customer outcomes and experiences.



## LEARNINGS FROM EXPERIENCE

Each phase brought a number of expected and unexpected challenges and learnings, which we have presented in this report. We have summarised the key learnings from the early phases of the retrofit pilots – whilst some are technical, they feel important to share with policy makers for consideration.

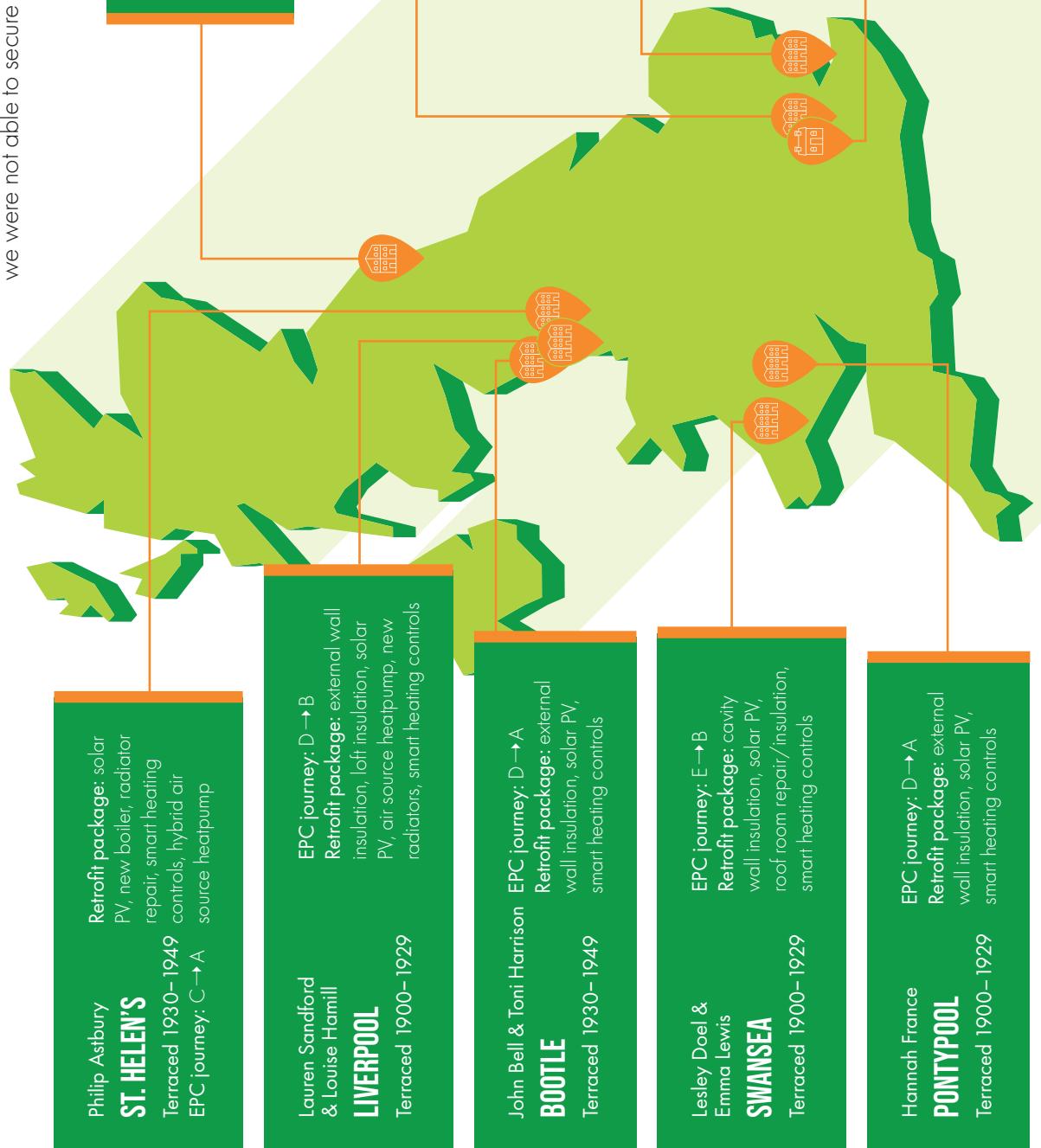
	LEARNINGS	DETAIL
 <b>CUSTOMER INVOLVEMENT</b>	Customer outreach and marketing permissions settings restrict the ability to engage households about available offers, even when fully-funded.	Most organisations require specific permissions to reach out to customer to offer specific products. This restricted the amount of customers who could be contacted in this regard.
	Customers tend to be sceptical of fully paid for propositions.	We found that most responders rejected the opportunity because they didn't believe the campaign was real – "Too good to be true" or because they felt it wasn't worthwhile.
 <b>QUOTING PROCESS</b>	The supply chain doesn't appear to have enough tradespeople to satisfy demand.	We encountered significant delays, including in receiving quotes for work. As well as costing valuable time, this lack of responsiveness from the supply chain is a major cause of customer discouragement.
	The property assessment tool (EPC) relies on outdated assumptions and has a bias towards older technologies.	None of the property assessments for the retrofit pilots recommend heat pump (or hybrid) technology, yet strongly promotes Solar PV. Electricity is deemed to be a less cost effective fuel than gas, and as such the installation of technology in reducing electricity demand has a profound impact on EPC ratings. Conversely in most cases, installing a heat pump reduces an EPC rating.
	We found that higher income households were more receptive to the pilot.	Most customers seeking a retrofit are usually more affluent. Interestingly, customers chosen for the retrofit would not have considered a full retrofit without the Coalition's financial support.
	External wall insulation is expensive.	Older properties, where cavity wall insulation is not possible, required external wall insulation which is by far the most expensive. It varies based on size and shape of property, with costs reaching around £15K. This is a general statement and not the case specifically for the pilot.
	The lack of standardisation in energy efficiency products leads to sub-optimal outcomes for consumers.	Our retrofit pilots have discovered that dependent on the make of boiler, some smart controls, such as smart thermostats may not work as expected or are not optimised.
	Lack of understanding around heat pumps as well as hybrids remains problematic for the decarbonisation of the home.	Some customers were able to install an air source heat pump, but opted for a new boiler instead. Fears about future energy costs, and the unknown aspect of the technology were often quoted as reasons to avoid a heat pump.
	A full retrofit has to be bespoke and thus expensive.	For a full retrofit, delivering maximum energy efficiency per the EPC report, investments can spiral. In our pilot, the most expensive overall quote came at £37,220 exc. VAT.
	Initial quote may be significantly over-priced risking customers over-paying or disengaging from the process.	Some installer quotes were reduced substantially following scrutiny (one by around £10K). This shows that quotes are not rightly priced and, without the Coalition's scrutiny, customers, who may not know the steps to take to challenge, could be over-charged for services.

	<b>LEARNINGS</b>	<b>DETAIL</b>
<b>INSTALLER SELECTION</b> 	Finding trusted installers remains an issue.	The lack of trusted installers nationwide will act as a break on national delivery, unless more action is taken to support the supply chain, especially SMEs.
<b>INSTALLATION</b> 	<p>Building work lead times are a cause of concern which need to be addressed.</p> <p>Conservation areas are limiting the reach and impact of energy efficiency, despite its role in delivering energy conservation.</p> <p>Not all local authorities are well versed and supportive of the process.</p>	<p>Like with the quoting process, we have experienced significant lead times to get tradespeople to start work on the properties.</p> <p>Some councils' planning regulations, including around conservation areas, are blocking external wall insulation. Such restrictions entail internal wall insulation cladding which is more disruptive, can reduce room sizes, and can require further internal redecoration.</p> <p>There appears to be differing levels of awareness and understanding across the different local authorities, with some causing substantial time blocks with cumbersome processes, contradictory communications and unawareness of the actual planning process for certain retrofit technologies. Anecdotally, one local authority stated it was not possible to get planning permission for solar panels, despite this being incorrect and later rectified.</p>
	There is no compelling reason for customers to get a revised EPC rating when improvements are made.	Customers regularly make improvements to their home without telling their lender. Insulation, Smart Thermostats, Heat Pumps, Solar panels etc. Some of these improvements will make positive changes to their EPC score, but until a fresh EPC assessment takes place, these changes will not be recognised in the EPC register.
	Some properties will require repair works before some energy efficiency interventions can be undertaken.	We have recommended and were ready to fit three different types of insulation (cavity insulation, timber wall insulation and flat roof insulation) for one property. Upon forensic examination, the existing cavity wall insulation was so poor and required significant costly repair. Due to that unexpected expense, we could not proceed with the planned insulation. This meant a recommended air source heat pump could also not be installed.

## RETROFIT PILOTS OVERVIEW

The initial phase of the retrofit pilot led to nine households being selected to join the first phase of the programme. They were chosen to cover the length and breadth of the UK, representing as best we could the various types of homes we were not able to secure flat owners to take part in the pilot in this phase.

making up the UK's housing stock both in terms of build and construction period, and the array of interventions most likely to be needed to reach an EPC C, from solar panel installations, to heat pumps and insulation works. Despite attempts, we were not able to secure flat owners to take part in the pilot in this phase.





## PHILIP ASTBURY



"I'm a single father and I work for the NHS. My children stay with me 3-4 nights per week and I have to spend the vast majority of what I earn on household bills and making our lives as comfortable as possible. This makes saving money for major improvements quite difficult."



## LAUREN SANDFORD & LOUISE HAMILL



"The main barriers to improving the property for us has been cost but also the age of the property; lots of modern solutions don't work well with the property."



## JOHN BELL & TONI HARRISON



"In honesty, [climate change] is not on the forefront of my mind, however I am aware of it and do understand the concerns."



## LESLEY DOEL & EMMA LEWIS



"Only having a smart meter for gas and electricity, we also started the process of having drains put at the front of the house to stop damp running down."



## HANNAH FRANCE



"Little awareness and cost meant energy efficiency was never really a priority. I assumed that there was little to be done to the property that would be affordable."



## RHONDA WINSKILL & BRYN STEPHENSON



"The thing we are most looking forward to about the green retrofit scheme is how it will enable us to reduce our energy consumption going forward."



## CLARA PAUL & JOSH READING



"I've been aware of things such as improving insulation, double glazing but definitely not very informed in all the technology and other options."



## LINDA PARKINSON & JAMES MARSHALL



"The best part of the process has been how effortless it has been on our part. Everybody who has contacted us has been very professional and very clear about what work needs to be done."



## DONNA & ANDREW MCDERMOTT



"We desperately need to change our windows and doors as we feel the cold air coming through them all the time but we cannot afford to do so following COVID."

# POLICIES TO MAKE A DIFFERENCE

It is clear that energy efficiency is no longer simply a climate issue, it is a cost of living issue and increasingly a national security one. Recent geopolitical events, combined with the cost-of-living increases, driven by the high and volatile wholesale energy price, continue to push policy makers to find answers to help people across the country. It is also evident that these are not short-term challenges but long-term problems, which need to be solved. The Coalition welcomed the announcement by the new Prime Minister and Chancellor of a new package of measures to support households with rising energy bills. The capping of energy prices for a typical household at £2,500, while still twice as high as the previous year, will provide reassurance for millions. The intervention provides the UK with a two-year window to accelerate the rollout of domestic energy solutions. A year on from the publication of the Heat and Buildings Strategy, it is more important than ever that this agenda is not an afterthought, but a crucial pillar of the UK's energy policy.

As a Coalition, we have thought about some of the levers that are at government's disposal, beyond energy policy to make this happen. The good news is that by amending elements of the current regulatory environment, real progress can be made – putting customers at the heart of the journey and empowering them to make the choices that are right for their homes.

In collaboration with local authorities, trade organisations, academics and the business community, we have developed and advocated for the government to prioritise five key pillars that will form the basis for a new and improved energy efficiency policy framework. These are summarised below.



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## POLICY PILLAR DETAILS

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### 1 A PUBLIC INFORMATION CAMPAIGN



Although public awareness around energy efficiency is on the rise, there remains a profound gap between the desire to make home improvements and the knowledge around how to undertake the change.

A public information campaign to educate the public on energy saving measures would go a long way towards creating momentum in the market. Alongside this, HMG will likely need to undertake its own information gathering campaign, aimed at understanding the state of the UK's building stock, in order to offer constructive advice to consumers across the country.

The government's consumer website with energy efficiency advice is a good step in the right direction, but a broader, far-reaching campaign is needed. Continued momentum to accelerate smart meter deployment is also essential.

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## POLICY PILLAR

## DETAILS

### 2 LONG TERM INVESTMENT IN THE MARKET



As highlighted in the Coalition's first report 'Home is where the Heat is', we call on HMG to:

**Maintain sufficient consumer choice** – there is a clear need for heating solutions that reflect the needs of different local areas and not simply a 'silver bullet' solution. Giving consumers choices will promote all segments of the wider energy efficiency market, whilst ensuring the 'right' technologies for different buildings are available where needed.

**Encourage Local Area Energy Planning** – government should encourage the development of Local Area Energy Plans (LAEPs), led by local authorities. By doing so, this will allow local experts to determine the appropriate technological and cost-effective solutions for their local area, taking account of the building stock in that region.

**Create clear signals for the future of boilers in the UK's built environment** – whilst we welcome the government's Heat and Buildings Strategy, the industry is in need of further clear, time-bound signals for the future of boilers (i.e. hydrogen ready). Such signals are critical for investor confidence and to grow a sustainable supply chain to meet the inevitable high future demand.

**Support infrastructure providers to prepare for a net-zero future** – the government must send clear signals for infrastructure and networks to allow them to appropriately invest in net-zero preparation. Existing infrastructure providers will play a critical role in the net-zero transition, and government must work with them to ensure trials are completed on time, with clear policy signals sent thereafter.

**Create clear pathways to decarbonise off-grid properties** – introduce requirements to low-carbon alternatives for off-grid buildings, including the use of HVO oil as the only heating oil, and bio-LPG as the only propane gas, that can be used by 2040.

### 3 EPC REFORM



Energy Performance Certificates (EPCs) are becoming a key consideration for homebuyers, yet they are currently acting as a blocker to non-fossil fuel solutions like heat pumps – this needs urgent review.

We are calling on government to build on its target to ensure all homes are rated EPC C or above by 2035. **Government should legislate that all homes sold by 2033 should have EPC C or above**, with exclusions around certain properties (e.g., listed properties on the grounds of affordability), following the same model as rented homes with all new tenancies from 2025 and all tenancies from 2028 needed to be EPC C.

This would provide a clear market signal with a ten-plus year run in period, providing the industry with the certainty that is needed to promote investment in Britain's building stock. We also suggest that government considers amending EPC methodology to ensure it reflects cost and carbon considerations, and mandates that EPCs are updated on a regular basis. As part of this reform, government should mandate the digitisation of EPCs.

## POLICY PILLAR

## DETAILS

### 4 ACCESSIBLE FINANCE



Financing energy efficiency measures is perhaps the greatest obstacle to consumers pushing ahead with home improvements. This has to be addressed.

HMG should consider partnering with banks to launch a '**Help for Energy Efficiency Scheme**', allowing banks, including UKIB, to provide low interest loans to households to upgrade their properties.

In a similar model as 'Help to Buy', HMG and industry should partner to help support the mass roll out of energy efficient products. The financial sector would lead the way in providing financing for energy efficiency products and services, and HMG would underwrite a proportion of the risk, to ensure the lending cost is lower, enabling customers to purchase products more readily for their homes.

With loans repaid at the point of sale of the property – due to the increased value due to energy efficiency – or over a longer period of time depending on circumstances this is fiscally responsible and sustainable policy with private finance leading the way.

**Social Housing First** – residents in social housing are most likely to find financing energy efficiency improvements challenging. We call on the government to double down on funding and ambition in the social housing sector, with clear timetables and ambitions to ensure scale and momentum. Support for local authorities will be critical in achieving this ambition.

### 5 STAMP DUTY REBATE



To encourage consumers and homebuyers to place greater value on energy efficiency stamp duty should be adjusted depending on the level of energy efficiency of the property – for instance, the better the energy efficiency of a property, the lower the stamp duty to be paid.

The Coalition is also calling on the government to launch an '**Energy Saving Stamp Duty Rebate**'. This policy would leverage the 'trigger point' of a house sale to provide a two-year window of opportunity for the owner to upgrade their home to EPC C, which if successful would be rewarded via a stamp duty rebate. This can be implemented in a fiscally neutral way for the government.

However, there will need to be exceptions to this rebate programme with allowances made for homes which are unable to move up through the EPC bands due to affordability concerns or if a property is protected.



# EMPOWERING THE SUPPLY CHAIN

## BETWEEN A ROCK AND A HARD PLACE

The energy efficiency marketplace is in a conundrum – it is both struggling from supply chain bottlenecks currently, while promising to be a sector of job creation in the coming decades. It is also highly sensitive to policy uncertainty and u-turns. In 2010, the sector was badly impacted by a government decision to 'scrap the green crap'. The sector has yet to fully recover, and today the lack of skilled workers (and materials) is a factor in holding energy efficiency back.

Recent analysis from IPPR found that the UK is currently installing only 11% of the heat pumps, 12% of the cavity wall insulations, 3% of the loft insulations and 3% of the solid wall insulations needed by 2028 to keep pace with net zero. It also found that a retrofitting programme in England could sustain over 400,000 direct jobs and 500,000 indirect jobs by 2030 and over 2.5 million direct and indirect jobs by 2050. While this points to a combination of blockers, including cost and public awareness, it underlines a critical issue which we identified in the first three phases of our retrofit pilots: the supply chain is not up to the size of the challenge and needs support urgently.

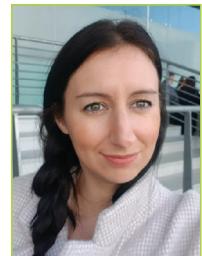
There are obvious improvements around the capacity, training and jobs standards, which must be looked at. The Construction Leadership Council with the support of the UK Green Building Council, the Federation of Master Builders and the Construction Industry Training Board explored this in detail in its National Retrofit Strategy. They identified that the existing industry workforce needs, ultimately, to be more than doubled, with the development of around 500,000 new professionals and tradespeople to tackle this challenge.

Their calls for a Retrofit Delivery Authority, updated training and accreditation, a holistic approach to scaling the supply of materials and equipment, strong performance standards, a best-in-class compliance and quality regime are all supported by the Coalition. Government endorsement and cross-party support for this strategic approach would provide the supply chain with the confidence to invest in scaling for the long term. It is critical to hear what the supply chain, especially SMEs, have to say about this. Addressing their concerns and heeding their calls will be key to unlocking any bottleneck.

## SUPPLY CHAIN EXPERT SNAPSHTOS

### PHILIP SALAMAN, MANAGING DIRECTOR AND CATHERINE GARRIDO, OPERATIONS DIRECTOR, QUIDOS

"Structural issues need to be addressed in the energy efficiency space if we are to drive rapid uptake across UK homes – critically homeowner knowledge of retrofit measures and the benefits they can provide, and the supply chain readiness and resilience to deliver that future demand.



From our experience, consumers do not have sufficiently accurate information to make appropriate decisions that will save them money, from reduced energy spend. Once they are activated, they are often discouraged by the delay imposed by a shortage of skilled labour and products to do the works. Targeted reforms such as amending the EPC framework and improving communications with regards to energy efficiency will both be effective first steps in driving demand for appropriate products and services. Once that can be established, the supply chain will inevitably rise to meet the challenge and demand – as this industry is a real area of growth for UK employment and manufacturing innovation. But the supply chain, which is principally made up of SMEs cannot be expected to scale at the required size without strong support from government, as laid out by the Construction Industry Council."



## IAN MATHER, BUSINESS DEVELOPMENT MANAGER AND JIM COTTON, DELIVERY MANAGER, BRITISH GAS

"From our experience, there are three important broader supply chain shortcomings which cannot be ignored.

The first is the size and skill base of the supply chain. At Centrica, we are already upskilling our engineers to install heat pumps, however there is still a major skills gap within the clean heating sector. In particular there is a need for more heat pump engineers and installers.

The second is the supply chain's ability to effectively educate consumers about using the technologies correctly. Many homeowners who wish to install a heat pump lack an understanding of how the product works. This leads them to believe that the products are ineffective and can lead to a negative perception of a perfectly working solution. To drive the mass uptake of heat pumps, and to realise the benefits from a heating efficiency perspective, will require a sustained public education campaign on the use of such technologies. The supply chain has a key role to play here, alongside public authorities.

The third issue which does not get discussed enough – is the underproduction of vital parts needed for installations such as insulated piping and glycol, as well as the lack of storage space made available for products at merchants, especially SMEs. For example, heat pump installations often involve replacing radiators and installing a new cylinder – which all require additional storage space compared to a boiler replacement."



## SME FOCUS NEEDED

As pointed out by the Green Finance Institute in its report 'Tooling up the Green Homes Industry: Financing the Retrofit Supply Chain' the energy efficiency sector in the UK is principally made up of SMEs and remains fragmented compared to European peers.

SME suppliers are less able or willing to make significant long-term investments (e.g. in skills development or new manufacturing technologies), have limited debt capacity and typically weaker balance sheets. Their risk appetite and confidence in their sales pipeline is also typically lower, following previous policy reversals. They need assurance and support if they are to drive the 10-fold market growth required to meet the domestic decarbonisation challenge.

Recognising the strategic importance of SMEs to the UK's sustainability agenda, in 2021, NatWest published Springboard to Sustainability Report. The report found that half the UK's carbon reduction ambition could be delivered by the country's SME sector, and pledged £100bn in climate and sustainable funding for SMEs over the coming decades.

## DATA UNLOCKED

As well as an SME focus, another key driver to empower the supply chain and drive consumer confidence is around unlocking the power of data. It is becoming increasingly clear that consumer confidence in retrofit requires monitoring of energy performance upon completion of the works and effective use of technologies like smart meters to ensure the savings match the promises. For this reason, we encourage the government to open up access, in a GDPR-compliant manner, to smart meter data for third parties.

Combined with new approaches like real-time energy performance monitoring and metered energy savings, such interventions should help provide both consumers and the supply chain with evidence of what works and what does not, as well as boost demand for retrofit interventions. This intervention should also help with reducing the risk of energy performance 'gaps', which the supply chain can learn from.

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